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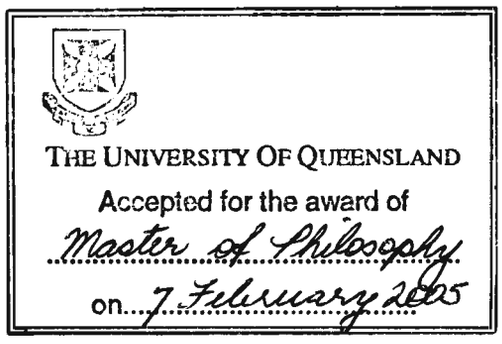
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DELEUZE AND MUSIC:

A CREATIVE APPROACH TO THE STUDY OF MUSIC

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Statement of Originality

I declare that the work presented in this thesis is, to the best of my knowledge and belief, original, except as acknowledged in the text, and that the material has not been submitted, either in whole or in part, for a degree at this or any other university.

Signed: .....

Date: 17 / 3 / 04

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Abstract

The work of Gilles Deleuze has influenced an increasing number of music scholars and practicing musicians, particularly those interested in experimental, electronic and popular music. This is despite the notoriously complex nature of his writings, and the specialised theoretical vocabulary that he employs. This thesis both demystifies some of the key terms and concepts of this vocabulary, before demonstrating how Deleuze's ideas may be put to work in new and fruitful ways; this is achieved with specific reference to the relationships that music has with thought, time and machines. In Chapter 1, Deleuze's understanding of the power of thought is examined, in particular his approach to communication, transcendence and immanence, and the "powers of thought." Each of these concepts helps us to understand Deleuze's work within broad problem of how to think about music immanently: that is, how to maintain that thought and music are both immanent aspects of life and experience. Chapter 2 examines time within a Deleuzian framework, linking his work on cinema with the concept of the "refrain"; both of these areas prove crucial to his understanding of music, as seen in Deleuze's approach to the work of Varese, Messiaen, and Boulez. In addition, Deleuze's understanding of time proves fruitful in examining various aspects of music production, as seen in contemporary electronic dance music. Finally, Chapter 3 looks at the concept of the machine, as developed by Deleuze and Guattari, with reference to the sorts of "machinic" connections that a Deleuzian approach encourages us to seek out in music. Once again, examples from contemporary electronic music are presented, in relation to the notions of becoming and subjectivity. Throughout these chapters, Deleuze's broad understanding of philosophy as the "creation of concepts" is deployed. This means introducing new ideas and specific types of music that encourage creative and novel engagements with the study of music.

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Introduction

Gilles Deleuze was a unique contributor to thought in the twentieth century, a philosopher whose work has been highly influential on current discourse, notably in the theoretical humanities, but also in the sciences and performing arts. This influence could be seen as a part of the broad impact that radical French thought has had on the wider scholarly community, particularly in the wake of postmodernist and poststructuralist discourses. As a prominent member of this philosophical milieu, Deleuze is nonetheless a singular figure: his contribution is, in many ways, distinct and highly contrasted to the contributions of others with whom he tends to be categorised. Viewed alongside thinkers such as Foucault or Derrida, Deleuze's thought is wholly unique in its approach to philosophy, its interdisciplinary scope, and its ability to create interesting new concepts.[1] Foucault famously predicted that this century would perhaps one day be known as "Deleuzian."[2] Although precisely what he meant in this ambiguous remark remains elusive,[3] it nonetheless reinforces the profound influence of Deleuze's thought in contemporary Continental philosophy.[4]

Deleuze's ideas have also recently found favour amongst musicians and certain scholars of music, particularly those interested in experimental, electronic and popular music.[5] That

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[1] See G. C. F. Bearn, "Differentiating Derrida and Deleuze," *Continental Philosophy Review* 33.4 (2000): 441-65. On the exchange between Deleuze and Derrida, see André Pierre Colombat, *Deleuze et la Littérature* (New York: Peter Lang, 1990) 258-61.

[2] Michel Foucault, *Language, Counter-Memory, Practice: Selected Essays and Interviews*, trans. Donald F. Bouchard and Sherry Simon (Ithaca, N.Y.: Cornell University Press, 1977) 165.

[3] Deleuze himself later asked whether it had occurred to us that Foucault's "little remark's a joke meant to make people who like us laugh, and make everyone else livid." Gilles Deleuze, *Negotiations, 1972-1990* (New York: Columbia University Press, 1995) 4.

[4] See Ian Buchanan, Introduction, *A Deleuzian Century?*, ed. Ian Buchanan (Durham: Duke University Press, 1999) 1-11. For a dialogue between Deleuze and Foucault, "Intellectuals and Power: A Conversation between Michel Foucault and Gilles Deleuze," see Foucault 205-17.

[5] For example, see Ian Buchanan, *Deleuzism: A Metacommentary* (Durham: Duke University Press, 2000) 175-91, and also Timothy S. and Daniel W. Smith Murphy, "What I Hear Is Thinking Too: Deleuze and Guattari Go Pop," *Echo: A Music-Centered Journal* 3.1 (2001). http://www.humnet.ucla.edu/echo (10 December 2003). In particular, the latter work discusses a number of Deleuze-influenced electronic and experimental music releases. Also see the list of Works Consulted, which includes an extensive collection of scholarly works that deal specifically with Deleuze and music-related topics (in addition to works in which Deleuze himself wrote on music). For a complete bibliography of works by Deleuze, compiled by Timothy S. Murphy, see Paul Patton, *Deleuze: A Critical Reader* (Oxford: Blackwell, 1996) 270-300. For a select bibliography compiled by Murphy

Deleuze has influenced music scholars is not entirely unexpected, as a significant component of his work was either directly concerned with music or indirectly related to aspects of the arts that influence music. That Deleuze has strongly influenced practitioners and scholars of popular music is somewhat more curious, given that he has been accused of rather highbrow musical tastes. For example, most of his references to music favour Western art music, in particular the music of the high modernist avant-garde.[6] However, Deleuze did utilise a marked interdisciplinarity in most of his work, and many scholars have found his approach to be appropriate for quite dissimilar genres of music. In particular, his work often helps to identify the hierarchies, paradoxes and assumptions that permeate how we think about music in general, and it encourages creativity and a sense of adventure in our scholarly interventions in music and the arts.

Despite the increasing influence of Deleuze in the humanities and the study of music, there are a number of common misunderstandings about his broad approach that tend to persist. Foremost amongst these is a superficial association of his thought with postmodernism. While Deleuze may rightly be aligned with aspects of poststructuralism, he cannot readily be aligned with the relativist aspects of postmodernism. Rather, he developed a unique and sometimes peculiar anti-Platonic version of realism. Deleuze was always concerned with our real experience of the world, and the various ways that such experience is subsumed within systems of representation and transcendence.[7] For Deleuze, this was the problem of an "empiricist conversion," or more specifically a superior empiricism: a belief in the reality of

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and Daniel W. Smith, see Eleanor Kaufman and Kevin Jon Heller, *Deleuze & Guattari: New Mappings in Politics, Philosophy, and Culture* (Minneapolis: University of Minnesota Press, 1998) 281-98.

[6] Sections of *L'Abécédaire de Gilles Deleuze, avec Claire Parnet* are particularly useful for understanding Deleuze's musical tastes and his personal relationship with music. See the overview of "O as in Opera," by Charles J. Stivale, *Gilles Deleuze's ABC Primer, with Claire Parnet* (1996). http://www.langlab.wayne.edu/CStivale/D-G/ABC3.html (10 December 2003).

[7] Manuel De Landa, *Intensive Science and Virtual Philosophy* (London: Continuum, 2002) x.

experience as the basis of life, without deferral to some ultimate ground or universal truth to explain such experience.[8]

This broad approach to the nature of thought is quite important to how Deleuze approaches music and the arts. In particular, in following Deleuze, we would need to endeavour to situate music and musical thought thoroughly within our immanent experience of the world, acknowledging the multiple connections that are constantly produced through life. For Deleuze, this meant constantly seeking out those aspects of music that confirm the emergence of new forms of thought, or that allow us to identify a new problem or an established paradox. Although Deleuze never wrote a complete work specifically on music, major sections of *A Thousand Plateaus* and *What is Philosophy?* deal with music,[9] there are frequent references to music (and specific composers) throughout many of his other works, and in a number of recently translated seminars and interviews Deleuze further expounded his ideas on various aspects of music.[10] In each of these works we can follow a common thread, which was the constant search for ways to think "alongside" music, ensuring that both music and thought are part of life. As Deleuze himself might have said, we should be encouraged to see what makes music philosophical, and philosophy musical.[11]

Another common misunderstanding of Deleuze's work arises from his penchant for creating concepts, and in the process adopting a new vocabulary to describe such concepts. A

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[8] Deleuze also referred to this as a transcendental empiricism. See Chapter 1, "Music and Thought" 14-16. Deleuze's empiricism owes much to the Scottish enlightenment philosopher David Hume. See Gilles Deleuze, *Empiricism and Subjectivity: An Essay on Hume's Theory of Human Nature*, trans. Constantin V. Boundas (New York: Columbia University Press, 1991).

[9] See especially the eleventh plateau, "The Refrain," in Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1987), and the concluding chapters of Gilles Deleuze and Félix Guattari, *What Is Philosophy?*, trans. Hugh Tomlinson and Graham Burchell (New York: Columbia University Press, 1994) 163-199.

[10] In particular, see Gilles Deleuze, "Boulez, Proust and Time: 'Occupying without Counting'," *Angelaki* 3.2 (1998) 69-74, and "Vincennes Seminar Session of May 3, 1977: On Music," *Discourse: Journal for Theoretical Studies in Media and Culture* 20.3 (1998) 205-18.

[11] Claire Colebrook, *Gilles Deleuze*, (London: Routledge, 2002) 53, and Brian Massumi, *A User's Guide to Capitalism and Schizophrenia: Deviations from Deleuze and Guattari* (Cambridge, Mass.: MIT Press, 1992) 6.

result of this tendency has been a reputation as a complex and difficult thinker. While many scholars in a wide variety of specialist fields have engaged with Deleuze, for many his name is still synonymous with the notorious complexity of his work, which is generally considered extremely difficult to understand, even for the seasoned scholar.[12] And while he is perhaps most broadly known for his use of peculiar neologisms – many of which have now become common parlance in humanities – it is not uncommon to find writers (in particular, music scholars) who tend to utilise these terms in ungainly ways: that is, many have engaged with Deleuze's terminology, but have been unable to synthesise the key features of his actual concepts.[13]

Yet another set of problems arise from the fact that much of Deleuze's most influential work is either co-authored with Félix Guattari, or consists of reinterpretations of historical figures in philosophy. Gary Genosenko terms the scholarly focus on Deleuze, at the expense of Guattari, as a "deleterious Deleuziana."[14] And regarding his early monographs on various philosophers (such as Henri Bergson and Friedrich Nietzsche), Deleuze infamously stated that he saw them as "a sort of buggery or (if it amounts to the same thing) immaculate conception. I saw myself as taking an author from behind and giving him a child that would be his offspring, yet monstrous."[15] This attitude is epitomised by statements that he made regarding the importance of "mediators," sentiments that are especially relevant to the question of

[12] Aside from this broad criticism, there have also been a number of specific critiques of Deleuze, the most useful of which is Alain Badiou, *Deleuze: The Clamor of Being*, trans. Louise Burchill (Minneapolis: University of Minnesota Press, 2000). Also, on the debate between Deleuze and the *nouveaux philosophes,* see Bernard-Henry Lévy, *Barbarism with a Human Face*, trans. George Holoch (Harper Collins, 1980). Lévy's infamous work opens with a virulent attack on Deleuze and Guattari, to which Deleuze replies in Gilles Deleuze, "On the New Philosophers and a More General Problem," *Discourse: Journal for Theoretical Studies in Media and Culture* 20.3 (1998): 38-40. For broader critical context, see Dominique Lecourt, *The Mediocracy: French Philosophy since the Mid-1970s*, trans. Gregory Elliott (London: Verso, 2001).

[13] For example, Steven Feld refers to the concept of "rhizome" with limited exploration of the concept in Charles Keil and Steven Feld, *Music Grooves: Essays and Dialogues* (Chicago: University of Chicago Press, 1994) 269. Similarly, Stan Hawkins employs the term "body without organs," demonstrating a clear misreading of the concept, not least of all due to the fact that he engages with Deleuze (and Guattari) via a secondary source. See Stan Hawkins, *Settling the Pop Score: Pop Texts and Identity Politics* (Aldershot: Ashgate, 2002) 163.

[14] Gary Genosko, *Félix Guattari: An Aberrant Introduction* (London: Athlone Press, 2002) 41.

[15] Deleuze, *Negotiations* 6.

authorship: "you're always working in a group, even when you seem to be on your own."[16] As we will see during our study of Deleuze, this response strongly reflects his understanding of the concept of "subjectivity" in general, and the idea of the author as "already multiple." I believe it is useful to borrow from this approach as scholars of music: if we deploy a "buggerising" schema in our own approach to Deleuze, we will be encouraged to connect his thought with music, and with musical thought, in original and undogmatic ways.

With further regard to the importance of avoiding philosophical dogma, I have titled the present work *Deleuze and Music,* rather than *Deleuze on Music.* This difference refers to Deleuze's understanding of the conjunction "and," which he employed to encourage a proliferation of connections: Deleuze *and* music, *and* cinema, *and* so forth.[17] As such, I am not only writing on Deleuze, and what he had to say about music: to do so would be to tempt hagiography, or a glorification of Deleuze, rather than an exploration of specific ideas. Rather, in a method comparable to Deleuze's own description of his work, I use his philosophical concepts as a toolbox for realising potentials and making connections.[18] To take another apt example from Deleuze, the idea is that we can drop a needle on the record, playing the specific track from an album that we enjoy the most.[19] In other words, we should apprehend and appreciate an author's work as a whole, yet emphasise those aspects of thought that prove to be particularly useful for our aims.[20] This is clearly a different approach from that of traditional criticism, which would find value (and a certain glee) in the search for authorial inconsistency. As Ian Buchanan infers, using the words of Deleuze: "'There are some,' Deleuze rather crankily snipes (at Derrida?), 'who can only feel intelligent by

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[16] Deleuze, *Negotiations* 125. This approach to subjectivity is elaborated in Chapter 3, "Music and Machine" 65-71. In addition, for a succinct summary of this issue, see Ronald Bogue, *Deleuze on Music, Painting and the Arts* (New York: Routledge, 2003) 9-10.

[17] See Bogue, *Deleuze on Music* 1-10. In this work, Bogue accurately reflects his title by offering a reading that outlines what Deleuze had to say on music.

[18] Foucault 208.

[19] Gilles Deleuze and Claire Parnet, *Dialogues*, trans. Hugh Tomlinson and Barbara Habberjam (New York: Columbia University Press, 1987) 3.

[20] On the notion of the "whole" of a philosopher's work, see Deleuze, *Negotiations* 85.

discovering 'contradictions' in a great thinker.'"[21] Such critical methodology Deleuze saw as the deplorable act of "criticiz[ing] without creating."[22] While I may at times take on a critical stance, I only ever do so with the aim of identifying a new problem, and creating new concepts: this is what Deleuze might have called a "creative approach to the study of music."[23]

As a result of Deleuze's creation of new concepts and a somewhat complex terminology, most commentators approach his work through an intermingling of two methods. Firstly, there is a tendency to assume an explanatory stance, using a limited range of new examples to illuminate Deleuzian concepts, preferring instead to explain and conceptualise the value of his approach.[24] In his own work, Deleuze often assumes that we are familiar with concepts that he has developed extensively through earlier works, and that we are familiar with a wide-range of specialist disciplines, such as biology and quantum physics. As such, an explanatory approach to Deleuzian ideas, if we are to put these ideas to interesting use, is quite justifiable. Secondly, specialist writers may take to Deleuze's ideas with nominal explication, following his penchant for creating and transforming concepts with abandon, and developing many new and novel connections with his work. In a very real sense, such an approach is much more in keeping with what Deleuze himself would have wished for. However, many problems result from the sub-specialisations that ensue, in that they do not facilitate an understanding of the broad applicability of Deleuze's work beyond such specialist disciplinary discourses. This thesis presents a deliberate admixture of both of these methodologies. It leans towards a "demystifying" of some key terms and concepts from the Deleuzian vocabulary, although it also introduces other related ideas that were not necessarily created or used by Deleuze

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[21] Quoted in Buchanan, Introduction 8.
[22] Deleuze and Guattari, *What Is Philosophy?* 288.
[23] For an excellent broad description of how to approach Deleuze and Guattari in this way (specifically regarding their work in the two volumes of *Capitalism and Schizophrenia*), see Massumi, *A User's Guide* 1-9.
[24] In this manner, see the eminently readable guide to key Deleuzian terms in Claire Colebrook, *Understanding Deleuze* (Crows Nest, N.S.W.: Allen & Unwin, 2002) xviii-xxx.

himself. It does so particularly for those with an interest in music, or the study of music, or for those who will find musical elaborations relevant or beneficial. In the sections where the thesis "breaks" with the usual Deleuzian terms, it does so in order to introduce and develop new concepts that – while they resonate well with Deleuze – look to convey different, often peculiarly musical issues.

The following chapters progressively introduce some key elements of Deleuzian terminology, described in an appropriate level of detail: chapter 1 examines Deleuze's image of thought, illusions of transcendence, plane of immanence, concepts, affects, and singularity; chapter 2, the time-image, refrain, deterritorialisation, rhizome, and repetition; and chapter 3 presents the ideas of desiring machines, becoming-other, and the body with organs. Following the introduction of these Deleuzian ideas, I emphasise an intermingling of such terminology with the paradigms of music practice and musical scholarship. This essentially continues the process of utilising the philosophical toolbox, and using the conjunction "and" to create connections. Deployed in this manner, Deleuze's ideas are more useful and constructive than if they were examined in isolation. This is especially true in the sense that it promotes a creatively useful approach to Deleuzian thought, thus encouraging the development of new ideas. In chapter 1, my conceptual intermingling incorporates the notions of "examples" and "accidents," within a broad discussion of musicology and the study of music. In chapters 2 and 3, several specific cases from contemporary music making practice are introduced. Chapter 2 includes an examination of "time and pitch" and "metallic synthesis," referring to the digital technology commonly utilised in electronic dance music. And in chapter 3, the concepts of the "cyborg" and the "posthuman voice" are explored, referring to two distinctive examples from popular culture, namely the music of Daft Punk and Björk.

Throughout these chapters, my emphasis is on the processes and texts of artistic production, rather than the many complexities of music consumption. This approach is common to all of Deleuze's writing on the arts: as such, when looking at music, I tend to focus on the creative procedures used in making music, in much the same way that Deleuze was concerned with the techniques of experimental film makers, writers, painters, or composers like Boulez and Messiaen. This is not to say that an appreciation of audiences is not employed in parts, or that it is not a useful approach. Rather, my emphasis on the creative processes and the nature of musical texts is simply a useful legacy of Deleuze's approach. The emphasis on creative process is played out though an examination of various music production technologies. This area of musical scholarship is now being explored to an increasing degree in various musical studies.[25] An examination of different styles and techniques of music production is especially useful in exploring and expanding Deleuzian ideas within the context of current music making practices. Just as Deleuze was always concerned with the *affect* of artistic works,[26] I also engage with the affect of music, and as Paul Théberge has noted recently, nowhere has the "link between 'sound' and musical genre been so intensely formed as in rap and various forms of dance music since the 1980s."[27] As such, various genres of electronic dance music will be introduced in this thesis, as examples that can challenge our implicit assumptions about music, musicology, and music scholarship more broadly. The study of Deleuze will benefit our critical understanding of these musical genres, particularly because such music often proves to be problematic when approached using conventional critical and analytical tools.

My style of written expression tends to avoid the more radical literary experimentation and rhetorical excess that some Deleuzian commentators are known to employ, and indeed, that

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[25] For notable examples, see Timothy D. Taylor, *Strange Sounds: Music, Technology, and Culture* (New York: Routledge, 2001), and Paul Théberge, *Any Sound You Can Imagine: Making Music/Consuming Technology* (Hanover: Wesleyan University Press, 1997).
[26] See Chapter 1, "Music and Thought" 20-21.
[27] Théberge 196.

Deleuze frequently employed. Consequently, the issues presented throughout this thesis should encourage a broad understanding of Deleuze's rather maverick work, alongside an appreciation of his relevance to the study of contemporary popular music. Throughout each of the chapters, I tend to use notes to refer to three types of works: those by Deleuze (usually in translation); those by writers that he has influenced; and those works that, while not directly related to Deleuze, help to provide further critical or musical elaboration in the context of this thesis. These three types of sources will prove useful if the reader wishes to follow a particular philosophical or musical concept, or pursue other related tangents. Further investigation into aspects of Deleuze's work will reveal some of the most thought-provoking and challenging elements of critical and musical thought in the twentieth century. And Deleuzian thought is – due to its emphasis on constant change and difference – exceptionally applicable to many present-day scenarios. As we encounter different styles of music and culture in the twenty-first century, we will find that Deleuze's ideas encourage us to interact creatively with new and emerging musical worlds.

Chapter One
MUSIC AND THOUGHT

Aspects of Deleuze's philosophical project are presented in this chapter as a means of examining the relationship between music and thought. While Deleuze created certain concepts explicitly in relation to music, it is with reference to his broader approach to "doing philosophy" that his work on music is best understood. Understanding of this approach helps us to appreciate the specific way that Deleuze approached music and the arts. As Pascale Citron notes, "It is by elaborating a conceptual apparatus laid out according to a specifically philosophical objectivity that Deleuze encounters music, just as he encounters in other instances painting, cinema, and literature."[1] I follow this description of Deleuze's writing, with this chapter being the examination of his specific "philosophical objectivity," and by further exploring his "elaboration of a conceptual apparatus" in chapters 2 and 3. The unique undertaking of Deleuze's work involved the relationship of thought to the arts in a number of ways that challenge how we think about music. One of these challenges was: How do we escape the definition of "thinking" as a series of propositions that, through reason and contemplation, can lead us to a "truthful" image of the world?

Communication

There is a common tendency to believe that through communication, critique and eventual agreement, we might reach a "common sense" form of knowledge. Against this tendency, Deleuze and Guattari chastise the usefulness of concepts such as common sense and contemplation: "Contemplation, reflection and communication are not disciplines but machines for constituting Universals in every discipline."[2] Communication, contemplation and reflection are not philosophy, according to Deleuze, for what they introduce is the desire

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[1] Pascale Citron, "About a Course on 20 March 1984. The Refrain and the Gallop," *Gilles Deleuze: Une Vie Philosophique*, ed. Eric Alliez (Les empêcheurs de penser en rod, 1998) 25-26.
[2] Gilles Deleuze and Félix Guattari, *What Is Philosophy?*, trans. Hugh Tomlinson and Graham Burchell (New York: Columbia University Press, 1994) 6.

for transcendent Universals, Forms and Ideas, and consequently they stifle the power of thought to create difference. Against the Western image of philosophy as "a democratic discussion amongst friends," Deleuze believes that there is nothing to be gained from discussion, because in the end we are never really talking about the same thing.[3] When we think we have reached a transcendent, universally agreed-upon common sense – through contemplation, communication and eventual agreement – Deleuze says instead that we have created a kind-of dead end for thought, an illusion of contemplation as a means to truth. We have closed off thought from its power to become something new by homogenising it, instead of enabling the virtual power of thought to produce difference. This problem is introduced when studies of music attempt to combine purely formal and contextual understandings of music into a common framework, presenting two complementary aspects of a common object of study: for example, when systematic and historical musicologies are combined to present a supposedly more complete picture of a particular musical work or composer. Where different disciplines are used in this way in order discover and support the same kinds of musical "meanings," a cul-de-sac has been reached; the attempt to unite thought through scholarly communication results in a homogenisation of thinking.

In many ways, Deleuze's dislike of communication sits uncomfortably with those of us engaged in the many forms of thinking about music, including musicology. This is because we have a tendency to see our disciplinary study as the search for a common ground regarding our objects; an agreed upon way of thinking that is fostered through communication, critique, and eventual consensus of some sort. Deleuze's attitude toward this type of communication relied upon the realisation that to constantly seek agreement in thought is to deny the affirmation of joyful difference: as he wrote, "All these debaters and communicators are

[3] Deleuze and Guattari, *What is Philosophy* 6; 28-29. For an attempt to work through these issues in relation to musical composition, see Silvio Ferraz, "Rethinking Music and Communication: Does Music Want to Communicate at All?," *Mikropolyphonie: The Online Contemporary Music Journal* 7 (2001). http://farben.latrobe.edu.au/mikropol/volume7/ferraz_s/Ferraz_S.html (10 December 2003).

inspired by ressentiment."[4] Here Deleuze refers to Nietzsche's man of *ressentiment:* for Nietzsche, the preoccupation with life's suffering in the Christian tradition is a form of perversion, in which life's joy is denied.[5] As such, the man of *ressentiment* becomes preoccupied with familiar and constraining patterns of thought based around an image of life as suffering. In contrast to the man of *ressentiment,* Nietzsche's "overman" is able to affirm joy in life, whereby both joy and suffering are seen as enriching and mandatory experiences. For Deleuze, a denial of life's joy is a denial of life's positive tendency to create difference. This becomes manifest in the formulation of one dominant type of thought, where differences in thinking are eschewed. Communication often does exactly this, tending toward homogenisation, supplanting one style of thought with another, or producing admixtures of both that supplant previous thought: this is done in order to get closer to "the way things are," or "the truth." Avoiding this pattern of "statement-critique-review-consensus" encourages instead a proliferation of divergent images of thought.

Image of thought

From his earliest writings, Deleuze developed the idea of the *image of thought.* First given its name in his study of Proust,[6] it is developed as a theme in *Difference and Repetition,* and also through his collaborative work with Guattari, most notably in *A Thousand Plateaus* and *What is Philosophy?*[7] The image of thought refers to the premises that develop concurrently with the creation of concepts; it is the often-hidden assumptions about larger problems that the philosopher relies upon in the creation of a philosophy. Importantly here, Deleuze believed that philosophies were singular creations, created by philosophers whose development of concepts presupposes this image of thought. In other words, the development of a philosophy

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[4] Deleuze and Guattari, *What is Philosophy* 28-9.
[5] See Gilles Deleuze, *Nietzsche and Philosophy,* trans. Hugh Tomlinson (London: Athlone, 1983).
[6] See Gilles Deleuze, *Proust and Signs,* trans. Richard Howard (London: Athlone, 2000).
[7] John Rajchman, *The Deleuze Connections* (Cambridge, Mass.: MIT Press, 2000) 32. On the eight postulates for the image of thought as a mode of representation, see Gilles Deleuze, *Difference and Repetition,* trans. Paul Patton (London: Athlone Press, 1994) 129-67. For an overview of the image of thought "From Leibniz to Borges," see Gregg Lambert, *The Non-Philosophy of Gilles Deleuze* (London: Continuum, 2002) 3-37.

presupposes a number of problems, or a particular outlook, that we can refer to as an image of thought. Because philosophy is never fixed, there is always room for other images of thought. This creative power of life to produce different images, what Deleuze might call "styles" of thought, was detailed in his final collaborative work with Guattari, *What is Philosophy?*

In this work Deleuze and Guattari present a tripartite definition of the powers of thinking, encompassing philosophical, artistic and scientific modes. They define these powers in very distinct ways: philosophy as the creation of concepts, art as the creation of affects and percepts, and science as the formulation of functions.[8] These different modes of thinking are intimately interpenetrated and constantly overlap, while at the same time we can identify their discrete characteristics – or "powers." Deleuze insists that we not confuse the three powers of thought with each other. It may seem counter-intuitive at first to divide thought into conceptual, affective and functional modes; painting can present concepts, and science can present affects. For example, a painter may, through visual images, present concepts about the nature of subjectivity, or about the state of society; a scientist may present a particularly affecting and moving account of the Big Bang and the birth of the universe. For Deleuze, however, this does not diminish the fact that each power of thought has its own strengths that we must seek to expand. According to him, we must expand thought to the highest power, against our tendency to *homogenise* thought. When we see all forms of thought as commensurate and propositional, as though we can add one thought to another and get an accurate picture of the world, we have succumbed to a particular habit of Western thought: we have separated thought from life.

[8] See Deleuze and Guattari, *What Is Philosophy?* 1-12. Other useful introductory accounts of these ideas can be found in Claire Colebrook, *Gilles Deleuze* (London: Routledge, 2002), and Claire Colebrook, *Understanding Deleuze* (Crows Nest, N.S.W.: Allen & Unwin, 2002). A more advanced overview can be found in Rajchman 32-47.

Illusion of transcendence

The issue with separating thought from life is that it introduces what Deleuze identifies as an *illusion of transcendence*. Such illusions arise when one looks to establish a unified ground for experience, by making thought immanent to something outside of experience. Understanding this aspect of Deleuze's philosophical project relies on a marked distinction between the terms "transcendence" and "transcendental." *Transcendence* refers to that which exists outside of our experience: that which we perceive as external and "unreachable" from our position in the everyday world. A common example of such transcendence can be seen in the Forms of Platonic thought. Somewhat contrasted to this approach is philosophical empiricism, which posits experience – rather than faithfulness to external forms – as the means to cultivate knowledge about life and the world. In particular, Deleuze saw his work as an example of *transcendental empiricism*: a style of philosophical thought that offers no ultimate grounds through which we might supposedly pinpoint "reality." This superior form of empiricism would take experience (and not just human experience) as the sole basis of thought, while at the same time denying any predisposition towards making experience immanent to something outside of itself. It is precisely the denial of all possible forms of transcendence that makes Deleuze's philosophy a superior, or transcendental form of empiricism. In the Western tradition, illusions of transcendence take a number of forms, including Truth, God, and Being. In the example of truth, we imagine there to be some eternal or absolute value of Truth; we live by the hope that, if we can identify this timeless value, it will enable us to live more proper and meaningful lives. When this image of truth becomes subsumed by Western Christianity's image of God, an illusion of transcendence has been set in motion, whereby judgment exists outside of our own experience of the world, handed down from an unknowable realm.

Similarly, the Western image of subjectivity is subsumed within an illusion of transcendence. Following the "death of God," subjectivity becomes the concept through which we can know the world. Deleuze sees in Descartes' "cogito" a particularly pervasive illusion of transcendence at work, and one that has extremely strong resonances in the contemporary world.[9] When we begin with the subject as the basis for experience, we must already have an image or concept of "I": we have already formulated a concept of subjectivity from the flow of experiences that constitute life. If we believe that the starting point for understanding is the experience of the subject, we have created an instance of transcendence, because we first had to create the idea of the subject as the basis from which we can know a supposedly "stable" world. Rather than seeing the subject as a stable *being*, set apart from the world, whose experience of this world gives rise to the knowable, Deleuze insists on the subject as a process of *becoming*. There is life, the flow of experience that exists prior to determinable perceivers or subjects. From this flow we form a distinction between "inside" and "outside" via perception. From perception comes the concept of perceiver, and from perceiver there is the possibility of creating an "I" as distinct from an outer, transcendent world.[10]

Another example of transcendence is the Western system of "representation," which occurs when we define thought as the description of first entities and their instances. When we think of a musical work in terms of an abstract idea or form, we have created an illusion of representation, whereby the "essence" of music exists outside of our possible experience of the world. This belief allows us to formulate a highly creative series of assumptions regarding musical worth: for example, that musical performances be seen as more- or less-faithful copies of a supposed "original." All of these forms of deferral to transcendence introduce what Deleuze refers to as the *dogmatic image of thought.*

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[9] Deleuze and Guattari, *What Is Philosophy?* 24-27.
[10] See Deleuze and Guattari, *What Is Philosophy?* 29-32, and Colebrook, *Gilles Deleuze* 125-45.

These pervasive Western forms of interpretation, critiqued in the anti-representational approaches of postmodernism and poststructuralism, also find a staunch critic in Deleuze. However, his approach traces a peculiar, disjunct tradition in philosophy that has an interesting relationship to these theoretical traditions.[11] His preference for philosophers from throughout history who have denied transcendence is exemplified in his earlier, more conventional works, where figures such as Nietzsche and Spinoza where important.[12] Following these studies, *Difference and Repetition* was the first instance where Deleuze proclaimed to be "doing philosophy," rather than doing the "history of philosophy."[13] In it, he anticipated many of the ideas that would become important in his later and highly influential collaborative work with Guattari. Throughout all of these works, Deleuze's emphasis was on finding the specific ways that philosophy could transform thought through the creation or identification of an underlying problem.[14] In the case of Hume, for example, it was the problem of how to think "subjectivity" beyond transcendence;[15] with regard to Bergson, Deleuze was particularly interested in the problem of duration, or how being – quantitative, spatial extensity and *transcendence* – is made superior to becoming – qualitative, temporal intensity and *immanence*.[16]

Plane of immanence

In a sense, the problem that underlies all of Deleuze's work is that of *immanence*: how can we think of life as immanent to nothing outside itself? How can we think of life in terms that do

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[11] Also often referred to as a "distaff" philosophical lineage. On this aspect of Deleuze's philosophy, see the overview presented in Michael Hardt, *Gilles Deleuze: An Apprenticeship in Philosophy* (Minneapolis: University of Minnesota Press, 1993).

[12] See Deleuze, *Nietzsche and Philosophy*, and *Expressionism in Philosophy*, trans. Martin Joughin (New York: Zone, 1992).

[13] Deleuze, *Difference and Repetition* xv-xvii.

[14] On the problem and the problematical, see Gilles Deleuze, *The Logic of Sense*, trans. Mark Lester with Charles Stivale, ed. Constantin V. Boundas (New York: Columbia University Press, 1990).

[15] Gilles Deleuze, *Empiricism and Subjectivity: An Essay on Hume's Theory of Human Nature*, trans. Constantin V. Boundas (New York: Columbia University Press, 1991).

[16] Gilles Deleuze, *Bergsonism* (New York: Zone, 1991) 37-49.

not rely upon Universals? We tend to think of God, subjectivity, ideas or universals that exist outside of life: notions that pre-exist and dictate how we understand the world. But why is it that we imagine a God who creates the world, or a subject who can know the world? Why do we define God or Truth as outside and above the world of our experience? Deleuze insists that the power of creation does not exist outside the world, in some transcendent realm, like "God" or the all-knowing "subject." Rather, creation and thought are immanent to life. Life *is* the creation of difference. In this sense, thought is not set over the world, as a representation of what exists; rather, thought is a part of life. This is an example of immanence: the affirmation that "to think is not to represent life but to transform and act upon life."[17]

Such an approach has repercussions for how we define music and thought. Do I listen to music, and then think about music, and then write what I think? Or, do I learn about music, in order to listen well, or properly? In both cases, thought is set apart from music. Thought may be seen as either presiding over music in a rational, objective realm, or as subservient to music's ineffable, incommensurable power. What effect do such assumptions have on the study of music? They stultify both music and thought, cordoning them off from each other, separating them both from the flux of experience. The purpose of a Deleuzian approach is to escape this situation. When we define thought not as an act inflicted upon music, but as something that takes place alongside music, both transforming and being transformed in the event, then we have affirmed immanence over transcendence.

Despite this affirmation, transcendence should not be defined as the opposite of immanence. Deleuze suggests that we affirm transcendence as an example of the positive power of thought to create; as a way for us to examine the differing "images of thought" throughout history – a history of thought. In musical thought, we might identify different

[17] Colebrook, *Understanding Deleuze* xxiv.

illusions of transcendence: from the Platonic image of music's relationship to proper Forms, to various analytical derivations of a Platonic approach, to the image of culture or history as the defining ground for musical meaning. Also, we can think of the *plane of immanence;* that is, the "prephilosophical" or "outside" aspect of thinking, the differential power from which different types of transcendence emerge.[18] Rather than implying that there is an ultimate ground for life, the plane of immanence is the *thought* of that which creates transcendence. Deleuze uses the example of Descartes' cogito: to formulate this question, Descartes must first have created the concepts of doubt and certainty, and formulated the problem "what can I know for certain?" Thus there is a plane of immanence that presupposes the plane of transcendence.

Concepts

Deleuze believed that philosophy was determined only by what it can *do*. Thus, what we know of philosophy is always changing, because we are constantly discovering that it can, in fact, *do* a great many things. The way that it does these things is by creating *concepts*. Deleuze and Guattari define the concept, or "the concept of *concept*,"[19] through a number of its characteristics. The concept is first and foremost a creation. Often in philosophy, we might see the concept as an observation of external events, as an objective proposition. Deleuze, instead, thinks of the concept as involving an intensive act of singular creation on the part of a specific philosopher. In a passage that resonates loudly with Deleuze's anti-Platonism, Deleuze and Guattari write:

> There is no heaven for concepts. They must be invented, fabricated, or rather created and would be nothing without their creator's signature. Nietzsche laid down the task of philosophy when he wrote, '[Philosophers] must no longer accept concepts as a gift, nor

[18] Deleuze and Guattari, *What Is Philosophy?* 35-60.
[19] Deleuze and Guattari, *What Is Philosophy?* 19, emphasis in original.

> merely purify and polish them, but first *make* and *create* them, present them and make them convincing. Hitherto one has generally trusted one's concepts as if they were a wonderful dowry from some sort of wonderland,' but trust must be replaced by distrust, and philosophers must distrust most those concepts they did not create themselves.[20]

As an example of this, Deleuze and Guattari point out that, although Plato taught the opposite, he was in fact aware of the act of concept creation, for he had to create the concept of the Idea before the Idea could be contemplated.[21]

The concept is also a multiplicity, made up of components. For Deleuze there is never a concept with only one component. A concept is also a response to a specific problem: "All concepts are connected to problems without which they would have no meaning and which can themselves only be isolated or understood as their solution emerges."[22] All concepts have histories, which is not to say that their histories are homogenous, but that each concept is necessarily made up of components that come from other concepts. Deleuze also talks about the *becoming* of concepts, whereby they form relationships with other concepts on the same plane.

From this, Deleuze and Guattari lay out a number of conclusions about the nature of the concept.[23] First, every concept relates back to other concepts, in its own history and becoming, and its own components may also be grasped as concepts. Second, the concept renders its components with a consistency. While components are distinct, they are not separable but rather overlap: as Deleuze and Guattari write, the different components of a

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[20] Deleuze and Guattari, *What Is Philosophy?* 5-6, emphasis in original, quoting Nietzsche's *Will to Power*.
[21] Deleuze and Guattari, *What Is Philosophy?* 29-32.
[22] Deleuze and Guattari, *What Is Philosophy?* 16.
[23] See Deleuze and Guattari, *What Is Philosophy?* 19-22.

concept have a "zone of neighbourhood" or a "threshold of indiscernability."[24] Third, each concept should be considered as a point of condensation, an accumulation of its own components. Fourth, the concept is incorporeal. Concepts are always constituted in actual bodies, but the force of the concept flows through multiple components that cannot be contained in individual bodies. Fifth, the concept is both absolute and relative. That is, the concept is relative with regard to its components, and absolute with regard to the "condensation" that it carries out.[25] Finally, the concept is not discursive, and philosophy is not discursive, because it does not link propositions together; the concept is not propositional. This last point most clearly ties in with Deleuze's distain for models of philosophy that stress communication and consensus, which often persist within representational modes of thinking.[26]

Affects

While the power of philosophy is to create concepts, Deleuze saw that the power of art was to create *affects* and *percepts* that do not originate from any one point of view.[27] This is contrasted with *affections* and *perceptions*, which are located in specific perceivers: for example, I see red, or I "feel" fear. Affects and percepts, on the other hand, are presented to us by art, but do not rely on us for their existence. For example, art can present the affect of fear, regardless of who is afraid, and when it is not ourselves who are afraid.[28] Deleuze would say that we could imagine hearing a piece of music that "is" scary, that creates a fearful affect, without feeling scared ourselves.

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[24] Deleuze and Guattari, *What Is Philosophy?* 19.
[25] Deleuze and Guattari, *What Is Philosophy?* 21.
[26] This point clearly also relates to the importance of connections and the conjunction "and," as outlined in the Introduction to the present work, 5.
[27] See Deleuze and Guattari, *What Is Philosophy?* 163-99.
[28] On the poetry of Emily Dickinson as an example of fearful affect, see Colebrook, *Gilles Deleuze* 22.

And while philosophy's style of thought is the creation of concepts, art also thinks, although through the creation of affects and percepts. The style of thought of a work of art, therefore, lies not in the creation of meaning for the listening or observer, but rather in the particular intensity of sensation that it brings about. In music then, we might say that the power of a piece of music lies in its unique sound. The sound world that it presents, apart from what it may mean to any one observer, indicates its particular style of affective thought.

Conceiving of art's power in this manner is inherently anti-representational:[29] where we might often say that the power of a work of art lies in what it 'means' – what it *represents* – Deleuze would insist that its power lies in its creation of singularities of affect. The power of art is its ability to separate affect from affection. We can see this played out in the way that music is often interpreted, when we ask the recurring question: What does this piece of music mean? The question of musical meaning may give rise to a number of creative responses. It may be seen to "mean" or represent a composer's response to certain formal and compositional challenges, or perhaps a reflection of social and cultural circumstances. Despite the creation of certain concepts concerning music, a continuing obsession with defining musical meaning along these lines is also an adherence to representational modes of thought, and a deferral to transcendence. Deleuze would insist that rather than asking what a piece of music *means*, we should ask: what does it *do*? What new affects does it create, what new connections does it allow? Approaching music in this way implies that the affect of a piece of music not be subsumed within an illusion of transcendence, and that the peculiarity of its style of *affective thought* be seen as amounting to a large part of its significance. It requires that we deny an absolutist understanding of musical meaning, but also that we deny any assertion that musical significance is merely arbitrary (or relative): rather, we may assert that the singularity

[29] See S. O'Sullivan, "The Aesthetics of Affect: Thinking Art Beyond Representation," *Angelaki: Journal of the Theoretical Humanities* 6.3 (2001) 125-35.

and uniqueness of a piece of music resides in its affect, and the multiple connections that this affect may produce.

What is musicology?

If philosophy's distinct power of thought lies in its ability to create concepts, and art and music in their ability to present affects that do not originate in a point of view, then musicology finds itself in a unique position, whereby it can draw on two very different styles of thought. However, even when musicology is at its most receptive to critical theory, the emphasis on communication and understanding between disciplines often results in a homogenisation of the powers of thought. This is plainly apparent in developments of psychological models of music, and attempts to "reconcile" these approaches with musicology. David Schwarz's *Listening Subjects: Music, Psychoanalysis, Culture* is a notable example of how this takes place: psychology is thought to tell us something about the nature of musical meaning that we add to our musicological understanding. Henceforth, a more accurate picture of music's nature is presented.[30] Along these same lines, in the final paragraph of Alastair Williams' *Constructing Musicology* – a manifesto on "Reconstructing Musicology" – he writes:

> Theoretically informed musicology is democratic because it finds ways of translating across disciplines and rendering elitist institutions more egalitarian. Understanding how discourses function, and considering the interests they serve, greatly enhances the transparency of communication. Enhanced interaction, in its turn, increases the chances of mutual comprehension between differing outlooks and experiences.[31]

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[30] David Schwarz, *Listening Subjects: Music, Psychoanalysis, Culture* (Durham: Duke University Press, 1997). Deleuze and Guattari express distain for psychoanalytical approaches, especially in the two volumes of *Capitalism and Schizophrenia.* See Chapter 3, "Music and Machine" 68-70.

[31] Alastair Williams, *Constructing Musicology* (Aldershot: Ashgate, 2001) 140.

A Deleuzian understanding of how discourses function does not posit as its aim the "transparency of communication" and "mutual comprehension." Setting these aims can simply assume that we are always talking about the same thing, and that there is a real connection between concepts through their common basis in reality or truth. Deleuze might instead state that we are always saying different things, and that disagreement and incommensurability of viewpoint are indicative of the creative difference of life. If we wish to combine a musicological perspective with the approaches of other disciplines, we have to be sure that not only their similarities and compatibilities be noted, but that the differences between them be emphasised. To discover similarities in "results" and a shared "comprehension" would not be evidence of a truth or reality in the materials being studied, but rather evidence that a particular transformation of the materials had been effected.

Examples

In *Parables of the Virtual*, Brian Massumi writes on how one way to avoid our tendency towards the *application* of concepts is through referring to *examples*: in an exemplary method, the example becomes neither particular or general, but a singularity.[32] In musicology's application of concepts to music, it is often the material itself – music – that undergoes change, more so than the actual concepts. That is, when musicology looks towards music to *demonstrate* theory, a specific transformation of music has taken place. If we wish to assert that there is a crucial act of creation in the formulation of concepts, then it should be the case that the *concept* is transformed through its encounter with the material: music must transform theory. Analytical understandings of harmony often rely on a homogenisation of hearing, even across quite different types of music. In the case of a Schenkerian approach to harmony, there will be a marked homogenising that takes place when the theory is applied to harmonic structures found in popular music. Following Schenker, Walter Everett's treatment

[32] Brian Massumi, *Parables for the Virtual: Movement, Affect, Sensation* (Durham, NC: Duke University Press, 2002) 17. On the concept of singularity, see below.

of the Beatles' music does just this: the music is heard (and relative judgments regarding value are implied) on the basis of similarities with the nineteenth-century *lieder* tradition.[33] Apart from arguments that may be made regarding the contextual shift that occurs between these two different periods and styles of music, there has been a certain transformation of the music that has taken place, while the concepts (in this case, those of Schenkerian theory) have emerged relatively unscathed.

How can this be avoided while studying music? One way that Deleuze might suggest is by approaching the elements of our examples that force thought outside of its standard frames of reference. That is, to approach the aspects of music that belie common sense understandings, or that do not fit within pre-existent theory. Following this method, examples cannot help but transform thought, because they challenge our ways of thinking, making our concepts confront factors outside of their initial formulation.

Accidents

One type of example that we might refer to is the *accident*. Musical events often seem to come about as a result of accidents, whether while composing or performing, or even while researching and writing about music. We experience accidents of one kind or another in our differing musical endeavours: both composers and performers may come across new techniques or interpretations through mistakes. This is especially applicable in jazz and popular music, but is equally so for Western classical musicians. The same types of creative accidents may even occur within musicology's own project of producing knowledge about music. In the case of the composer or performer, perhaps a hand stutters and misses its mark on the keyboard, fingers slipping unexpectedly. A note is struck from out of nowhere. Not

[33] See the critical overview of this area in Allan F. Moore, *Rock: The Primary Text, Developing a Musicology of Rock*, 2nd ed. (Aldershot: Ashgate, 2001) 11-13. Also see Walter Everett, "The Beatles as Composers: The Genesis of Abbey Road, Side Two," *Concert Music, Rock, and Jazz Since 1945: Essays and Analytical Studies, eds. E. Marvin and R. Hermann* (Rochester, N.Y.: Rochester University Press, 1995) 172-228, and Allen Forte, *Listening to Classic American Popular Songs* (New Haven: Yale University Press, 2001).

what was intended, not what was planned, an accident. However, something unusual arises in the gap between intention and the physical action: a *sound* grabs our attention. The affect is absolute in its uniqueness, and incomprehensible within the predisposed framework of performance.

When such accidents occur, we often immediately reduce them to the status of anomaly. Perhaps we play on, ignoring the mistake, and reasserting the framework in which our performance began: *this is how it should have gone*. Or, we might repeat the result of the slippage, only this time with intention. The sound becomes recognisable, although it is not the same event (it does, however, assert its virtual relationship to the event). We repeat it again, and think of it as the "same" accident; it is interesting, it works, and it begins to *sound good*. We continue to play over the section, transforming the music. What was an accident ceases to be as such. It moves from a singularity to a particular instance of a general type. The accident is subsumed within a framework, and its singularity is reduced to a logic of resemblance. The accident becomes repeatable, acceptable within the original framework, its surprising affect becoming part of a representational system. It is no longer a singular, idiosyncratic event. In the newly re-written version of the music, the anomaly becomes another part of an abstract representation.

The anomalous event is perceived in either of two ways: firstly, as sudden and unexpected, through what we might call the Light Bulb Theory; and secondly, as a hidden truth contained in our objects of study. These ways of defining accidents can be understood as *humanist* or *organicist* approaches respectively; while they are distinguishable, they overlap considerably in their application. A humanist approach identifies accidents as originating in the creative processes of the human mind. This approach is exemplified in those studies of creativity that see accidents as the result of unconscious mental processes. In this understanding, the human

mind processes information and forms connections, thus explaining away accidents on a psychological level: for example, the infamous Freudian slip. An organicist approach – in contrast, although not in opposition to the humanist account – determines that accidents arise because of the nature of the objects of study: namely, they see that some truth relationship has been divined. An example of this is a belief in the existence of laws behind nature that determine those accidents that are "possible," and those that are not.

The issue with these ways of understanding accidents is that, as Deleuze would note, they introduce an illusion of transcendence. Such illusions reflect the need of a Western representational system to establish a unified ground for experience. A humanist account relies on the human subject as its plane of transcendence through which all acts of thought and life can be explained. So when an anomalous event transpires, it is related back to the ultimate ground of subjectivity. Similarly, the organicist explanation requires that singular events be explained as results of, for example, physical and natural laws. These are still creative ways of accounting for the accident. They present positive and affirmative examples of the power of thought to create planes of transcendence.

Singularity

The question now might be: How can we conceive of accidents any differently than this? And how do accidental musical events inspire us to think anew about music? Deleuze's response would be to see them as *singularities*. The direct implication is that accidents need not be held to illusions of transcendence. The accident loses its status as singularity when it is defined as a subconscious slip. It ends up being determined by subjectivity's plane of transcendence, and as such the psychological processes at work become what is important. Similarly, when the accident is subsumed under the rubric of universal physical or natural laws, the conditions of possibility of the accident become predetermined and explicable. In both cases the singularity

of the accident – that which made it a particular, unique event – is lost in the deferral to transcendence.

Hence, in addressing the problem of how musical accidents inspire us to think about music, we might say that they remind us of the absolute singularity of musical events. The absolute singularity of the event *does not* relate to the way we often use the word "absolute" in musicology. On the contrary, it means addressing our tendency to universalise, our apparent desire to assert that Abstract Musical Works reside on some plane of transcendence. Against this, Deleuze and Guattari remind us that when singularity is subsumed by a system of transcendence, we will then tend to "dismiss[ing] its potentially torturous anomalies as functionally insignificant".[34] It is precisely such torturous anomalies that provide ways out of representation.

Rather than define the accident as an anomaly in order to dismiss it, or subsume its virtual potential within transcendence, Deleuze and Guattari put it to work for the empowerment of non-representational thinking. In particular, they see art as presenting singular affects; sensations that are experienced "in their singularity, liberated from organising systems of representation."[35] The accident, in its singularity, denies the illusion of transcendence that would seek to ignore or subsume it, and denies the representational system that wants to acknowledge only sensible, rational or logical components. The accident as singularity persists even when representation wants to cut away at it, discarding that which cannot be digested like so much unwanted fat.

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[34] Brian Massumi, *A Shock to Thought: Expression after Deleuze & Guattari* (London: Routledge, 2002) xxxi. The obvious musicological link to be drawn here involves Schenkerian theory, which has been criticised for ignoring singularity in favour of an ultimate level of transcendence. It must also be mentioned, however, that illusions of transcendence recur in many more musicological guises than this particular example, in historical, "new", and "critical" musicology as well. The recurrent notions of "culture" and "subjectivity" as ultimate grounds are particularly prevalent in these latter approaches. See Chapter 3, "Music and Machine" 66-8.

[35] Colebrook, *Gilles Deleuze* 22.

As Deleuze noted in his study of painter Francis Bacon, we may often recognize breaks from representational forms that result from the manipulation of the very mechanics of the medium in which the artist operates.[36] Manipulating the mechanics of the musical medium can obviously take many forms. One of these is certainly the accident, which often presents musical content that representation seeks to eliminate; the slip at the keyboard, a wrong note, but also pops, scratches, clicks and glitches in recorded music. The best examples of these electronic types of musical accidents come from the "noise" and "glitch" genres: the materials of music here become tape hiss, vinyl static, the sounds of skipping CDs, as well as the accidents of technology like corrupted data files, distortion and errors.[37] Placing this content at the centre of musical expression draws attention to that which the technology seeks to hide, pointing out the illusion of transcendence that is contained in the audiophile's goal of Perfect Natural Sound. It reminds us once again of the absolute singularity of musical events: that a recording can never be the exemplar that a system of musical representation wants it to be.

How do musical accidents change what we can say about what music *does*, rather than what it *means*? We can see that what music does is present singularities of affect. And when we ask what music means, then we have introduced a system of representation once more, an illusion of transcendence, what Deleuze would call a false problem. This attitude towards musical meaning presents a slightly difficult proposition to those of us accustomed to thinking of what we do in musicology as being centred around a common object of study, and more often than not, what meaning we might extract from this object. Musicology's concern with musical meaning is a highly creative act that produces differing planes of transcendence; it provides us with concepts that seek to explicate how meaning is formed within a

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[36] Gilles Deleuze, *Francis Bacon: The Logic of Sensation*, trans. Daniel W. Smith (Minneapolis: University of Minnesota Press, 2003).

[37] On "noise music," see Greg Hainge, "Come on Feel the Noise: Technology and Its Dysfunctions in the Music of Sensation," *To The Quick* 5 (2002) 42-58. On the relationship between critical theory and experimental music, see Greg Hainge, "A Whisper or a Scream? Experimental Music Sounds a Warning for the Future of Theory," *Continuum: Journal of Media and Cultural Studies* 16.3 (2002) 285-98.

representational system (for example the tonal system, or a system of cultural signification, and so on). However, when approaching music that seeks to expand affect beyond transcendence, musicology must be prepared to forgo its preoccupation with musical meaning. It can instead take as its cue the music's willingness to break with representation via a manipulation of the musical medium. One of the key ways that this can take place is by carefully examining the accidental event, and how a musical singularity loses its uniqueness through the process of forming general musical types.

Summary

Deleuze's understanding of music hinges on the broad philosophical concerns that permeate all of his work on the creative arts: from composers Boulez and Messiaen, to Franz Kafka and Francis Bacon, and his work on post-war avant-garde cinema. That is, what he wrote about music (or painting, or literature, or cinema) is best presented in the light of the following ideas. Firstly, he reminds us that communication and consensus are not the desired outcomes of thought. Rather they are evidence of our tendency to homogenise thinking and define knowledge as additive. Therefore, when we write about music we should not necessarily see our aim as some ultimate coagulation of knowledge that might give us a "complete picture." Secondly, what we need to identify in thought are the illusions of transcendence. That is, we need to recognise when we have deferred thought to an ultimate ground, separating thought from life. Therefore, explaining music's meaning in terms of its relationship to abstract patterns would mean upholding this separation, making thought immanent to something outside of life. Thirdly, the specific powers of thought lie in their differences: philosophy thinks via the creation of concepts; art and music think through the creation of singular affects and percepts. Following from this, searching for what music means – what concepts are presented by a musical work – often results in a deferral to transcendence, and an indifference for the affective style of thinking as presented in music.

Chapter Two
MUSIC AND TIME

Along with the question of how to think of immanence, Deleuze interrogated the various ways of thinking that inform our understanding of time. On this topic, his ideas owed much to the Stoics, Bergson and Nietzsche, Proust, and the visionary auteurs of post-war experimental cinema. The concept of time that Deleuze formulated from these influences has distinct ramifications for how we study music, and music's complex relationship with temporality. This chapter explores these issues, with the aim of outlining some key aspects of Deleuze's understanding of time, including: firstly, the critique of spatialised time; secondly, the different images of time in cinema; and thirdly, Deleuze's concept of the refrain. Following an exploration of these concepts, I focus on different types of music that encourage new temporal understandings. In particular, the manipulation of the mechanics of recording technology, as found in certain electronic music, is able to expand and reorient our understanding of musical time. With regard to understanding time, Deleuze's approach could be characterised with the following question: How do we form an "image of time" from our immanent experience of the world?

Time and space

In response to this problem, Deleuze presents a radical decentring of our temporal understanding, by pointing out that the human perception of temporal flow is only one of many differing images of time. For example, we usually order the flow of our experience according to the viewpoint of human agency. We have developed the ability to use memory to consider and predict; to "slow down" thought, and act according to our past experiences. We tend to trace our perceptions back to a proper form or object, of which they are considered an accurate and true representation. When we only see time from the point of view of the human subject, we have reduced experience to an original ground or foundation, creating an instance

of transcendence. Deleuze's transcendental empiricism is precisely a "superior" and "radical" empiricism because it questions even the human subject as a ground for experience.[1] Deleuze defines experience not only in terms of human experience; he also considers various inhuman experiences, such as those of molecules and plants.[2]

For example, a molecule does not choose to operate in a certain manner by means of "slowing down" perception, thus using memory in order to predict and consider. It operates at a faster speed, existing within a different temporal framework from that of human perception, and defined by different connections. Deleuze described these connections as operating at different types of "speed" and "slowness." As another example, when we perceive light emitted by the sun, we engage with it according to the way that the human eye and retina responds to this stimulus. However, a plant responds to and connects with light in a very different way (through the process of photosynthesis), and at a very different "speed" than does the human eye. Following these examples, Deleuze's approach to time looks to expose various inhuman times that enable us to better grasp how we form images of time from the immanent flow of experience.

One of the ways in which we create illusions of transcendence in temporality is demonstrated throughout the history of time/space relationships in Western thought. When it came to concepts regarding time, one of Deleuze's most loved intercessors was Bergson: another of the philosophers that Deleuze famously reworked in his own writings.[3] Together with Bergson, Deleuze objected to the commonplace understanding of time through the use of

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[1] See Chapter 1, "Music and Thought" 14-16.

[2] For more on Deleuze's engagement with the inhuman elements of life, see Chapter 3, "Music and Machine" 71-74.

[3] In particular, see Gilles Deleuze, *Bergsonism* (New York: Zone, 1991). Also see Keith Ansell-Pearson, *Philosophy and the Adventure of the Virtual: Bergson and the Time of Life* (London: Routledge, 2002), Constantin V. Boundas, "Deleuze-Bergson: An Ontology of the Virtual," *Deleuze: A Critical Reader*, ed. Paul Patton (Oxford: Blackwell, 1996) 81-106, and Michael Hardt, *Gilles Deleuze: An Apprenticeship in Philosophy* (Minneapolis: University of Minnesota Press, 1993) 1-25.

spatial metaphors.[4] Such spatial metaphors are often engrained in how we conceive of musical relationships, particularly when music is disengaged from its temporal context through theoretical abstraction.

The origins of this spatial understanding of time essentially come from Classical Antiquity: from the Platonic and Aristotelian ontology of time and space.[5] For Aristotle, space is seen as having three main characteristics: firstly, space is infinite and infinitely extendable; secondly, it is empty, for only if it is empty can it contain things; and thirdly, it is real – indestructible, immobile, unchanging. Analogously, time is understood as infinite, as a receptacle of being, and as an unchanging, absolutely regular part of the cosmic order. In the Stoic model, this kind of "eternal" time that precedes, gives birth to and orders time is Aion, and that which it gives rise to is Chronos.[6]

Euclidian geometry confirms this concept of space, and therefore implicitly, its related understanding of time. As a self-contained, axiomatic methodology, Euclidean geometry proposed a conception of space that was infinite, homogenous, precisely measurable and accountable according to mathematical postulates. Newton's laws of motion are basically the utilisation of these same principles of Euclidean geometry in relation to the movement of physical bodies: a set of laws or guiding principles that act as an axiomatic system. The problem with both sets of principles is that time is reduced to space: Newton's time is infinite, absolute, universal, the same time for everyone. Such a linear interpretation of temporality forms the basis of our common understanding of time, in which we plot out points that are considered in relation to the universal temporal continuum.

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[4] On Deleuze's disdain for metaphor, see Gilles Deleuze and Félix Guattari, *Kafka: Toward a Minor Literature*, trans. Dana Polan (Minneapolis: University of Minnesota Press, 1986) 70.

[5] On "The Space-time of Physics," see Elizabeth Grosz, *Space, Time, and Perversion: Essays on the Politics of Bodies* (New York: Routledge, 1995) 93-101.

[6] See the discussion of "metallic synthesis" below.

Euclidean geometry's privilege as the primary model of space was disrupted by the advent of non-Euclidean geometries, such as the hyperbolic geometries of Reid, Gauss, Bolyai, and Lobachevsky. Out of Gauss' theory of surfaces, Reimann developed spherical geometry, which proposes a world of *n*-dimensions, rejecting the fundamental axioms of Euclidian space. Just as these new geometries proposed a challenge to the primacy of Euclidean representations of space, and the accompanying metaphorical understanding of time, Einstein's theory of relativity also proposed a similar challenge to Newton's laws of motion. What Einstein's relativity most strongly rejects is Newton's distinction between space and time as distinct, unitary entities. Instead, space, time, and matter become interconnected, undefined, relative terms that united in spacetime.

However, these scientific representations of space and time lack something fundamental to time. They give us little understanding of our own personal, affective experience of time. Newtonian or Einsteinian understandings of time do nothing to describe the *passage* of time, this passage being something that we feel innately in an inner, subjective way. We may use clocks to measure intervals of time, but they tell us nothing of the actual motion of time: the in-between, the becoming, of our experience.[7]

Following from Bergson, Deleuze saw that duration, or the motion of time, cannot be measured or divided as a quantity, without introducing a change in its quality. In other words, when we think of time as like space, we create an image of time that is essentially numerical, divisible, and quantitative. What we lose through this division are the qualitative attributes of time: those attributes that connect with our inner knowledge of the passing and flux of time. While space is homogenous, in that it can be infinitely divisible into differences of degree, duration is heterogenous, in that it cannot be divided without producing a real difference in its

[7] On the debate between Bergson and Einstein, see "'A Life of the Real' and a Single Time: Relativity and Virtual Multiplicity" in Ansell-Pearson 43-69.

very nature. This qualitative and heterogenous understanding of time "challenges the usual distinction between the form of time and its content", whereby time is merely a "receptacle for being."[8] We cease to formulate an image of time that is independent from our lives, infinitely extendable, absolute and universal. As an alternative concept, Deleuze proposes that duration unfolds along with life, in a process of becoming, as a continuous manifold, a constant source of novelty and qualities of difference.

On the implications of these different understandings of time and space, Elizabeth Grosz writes: "This rich pluralism of representations is not necessarily aligned to the primacy of the visual (as in Euclidean geometry), nor to the perception of matter, but enables a multiplicity of (sometimes) incommensurable models of space and time to be explored."[9] Such incommensurability refers as much to different human and inhuman perceptions of time, as to variant mathematical and scientific ones; understandings which may not only have bases in quantum physics, or astrophysics, but also in specific, peculiar beings. Interpretations of time need not be coded by some kind of ultimate formula or scientific function. Following Deleuze, we can say that each being has its own rhythm and temporality that in turn reflects the constant becoming of life. This notion is essential to the consideration of music and time in this thesis. What it prescribes is a seemingly innocuous proposition: that different music engenders different relationships to time. Not necessarily the universal, abstract time that we might find implied in musical analysis, but a proliferation of sometimes-incommensurable models of space and time, arising from singular musical experiences and events.

Time-image

Deleuze's two volumes on the cinema both deal with movement, image and time in an essentially Bergsonian way, thoroughly indebted to the understanding of movement and

[8] Boundas 93.
[9] Grosz 97.

duration as free from spatial metaphors.[10] This approach means that Deleuze did not see the affect of cinema as simply the result of a sequence of immobile sections, still images or separate frames. Rather, cinema does something different in his view: it creates movement-images and time-images through the relationships *between* those immobile frames, not the frames themselves.[11]

The concept that Deleuze presents in these volumes is that, since the development of cinema, we have seen two types of image. Firstly, he recognises the cinema of movement-images, in which temporality is governed by the movement of action and linear narrative.[12] This is the cinema of the hero, of action-leading-to-resolution, of the image that provides an apprehension of movement. Deleuze thought of it thus: "The cinema of action depicts sensory-motor situations: there are characters, in a certain situation, who act, perhaps very violently, according to how they perceive the situation. Actions are linked to perceptions and perceptions develop actions."[13] Deleuze sees this cinema of movement-images as constituting the dominant form of cinema before the Second World War, although the characterisation is not an historical one: the movement-image is still the predominant model of most non-experimental cinema today.

The second type of cinema, of the time-image, is a cinema that reacts to the type of alienation that occurs in extreme situations, like those of war, where the movement-image's reliance on linear narrative cannot survive. Deleuze describes the time-image thus:

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[10] See Gilles Deleuze, *Cinema 1: The Movement-Image*, trans. Hugh Tomlinson and Barbara Habberjam (Minneapolis: University of Minnesota Press, 1986), and Gilles Deleuze, *Cinema 2: The Time-Image*, trans. Hugh Tomlinson and Robert Galeta (Minneapolis: University of Minnesota Press, 1989).

[11] Edward R. O'Neill, "Apprehending Deleuze Apprehending Cinema," *Film-Philosophy* 2.2 (1998). http://www.film-philosophy.com/vol2-1998 (10 December 2003).

[12] For a useful review of The Movement-Image, see Marie-Claire Ropars-Wuilleumier, "The Cinema, Reader of Gilles Deleuze," *Camera Obscura* 18 (1988): 120-26.

[13] Gilles Deleuze, *Negotiations, 1972-1990* (New York: Columbia University Press, 1995) 51.

> Now, suppose a character finds himself in a situation, however ordinary or extraordinary, that's beyond any possible action, or to which he can't react. It's too powerful, or too painful, too beautiful. The sensory-motor link's broken. He's no longer in a sensory-motor situation, but in a purely optical and aural situation. There's a new type of image.[14]

This new type of image is the time-image: at the point where the sensory-motor link is broken, we are left with what Deleuze terms "opsigns and "sonsigns"; purely optical and aural situations, existing in a situation where perception and affection enter into new relationships.[15] Through this, we glimpse the "temporalising [of] the cinematic image", which Deleuze calls "a little bit of time in its pure form, rather than motion."[16] The cinema of the time-image enables the liberation of time from motion, whereby the previous relationship between the two is inverted. "Time no longer derives from the combination of movement-images, it's the other way around, movement now follows from time."[17] The concept of the "crystal" functions as a description of this point at which time becomes visible, where the layers of time, a "direct image of time," is presented. Through a crystallisation, a refracting prism, we glimpse a kind of mirror image of time; the sides of the crystal refract and interact, past meets the present, which is constituted again as past; an aspect of time's nature is revealed through film.[18]

Time and music

For Deleuze, the significance of cinema after the Second World War lies in its relationship to time, and the new temporal understanding that it creates. Similarly, time plays an integral role

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[14] Deleuze, *Negotiations* 51.
[15] Deleuze, *Cinema 2* 1-13.
[16] Deleuze, *Negotiations* 59.
[17] Deleuze, *Negotiations* 52.
[18] See Ronald Bogue, *Deleuze on Cinema* (New York: Routledge, 2003), and D. N. Rodowick, *Gilles Deleuze's Time Machine* (Durham, NC: Duke University Press, 1997) 90-92.

in his approach to music. This is particularly significant, as the study of time and the study of music have not tended to exist in close proximity, especially in the discipline of musicology. This is not because time is not a central part of music itself, for time and duration are surely integral to musical sonority. However, the usual frameworks in which knowledge about music exists are implicitly hostile to examinations of the concepts of time, temporality, and duration. As Susan McClary has said about issues of space, issues of time are "actively repressed by professional musicians and theorists."[19]

Traditional Western musicology may often imply a negation of duration, through an insistence on the Abstract Musical Work as the highest structural level, with sonority and duration somewhere well below this. Time becomes merely the vessel in which the sonorous form of music is contained. These Platonic derivations colour musical analysis to such an extent that an anti-Platonic stance – one that also proposes alternatives to representation and imitation – can have a major impact on the study of music. Within this general project, time functions as a useful protagonist. When we think about temporality, we may be able to illuminate aspects of music and musicology that would otherwise remain disguised or implicit.

For example, in traditional music analysis we tend to rely on temporal concepts imbued with spatial models: analyses of structure, and of harmony, can often exist independent of a temporal framework, or within a facile, "vessel-like" time that contains them. Certain music lends itself to these types of approaches, through its reliance on linearity and logical progression. However, other types of music may give us an entirely different and affecting experience of time. Therefore, when we study such music, we need to create concepts that take temporality into account: concepts that travel through time, as well as through space. For

[19] Susan McClary, *Feminine Endings: Music, Gender, and Sexuality* (Minneapolis: University of Minnesota Press, 1991) 136. See especially the argument presented in Chapter 6, "This Is Not a Story My People Tell: Musical Time and Space According to Laurie Anderson" 132-47.

Deleuze, this emphasis on the creation of new concepts, and his engagement with different types of music, resulted in the new terminology of the "refrain," "milieus" and "rhythms." In our study of music, the impact of Deleuze's approach is significant. In particular, it suggests that our musical examples have the power to transform the image of time that we create from our immanent experience of the world. In other words, our musical examples can transform time.

The refrain

Deleuze wrote extensively on the arts, not only on cinema in the two cinema volumes, but also on painting and literature, and on music, especially in *A Thousand Plateaus*. In this work he explores the concept of the "refrain" or "ritornello": literally, the "little return."[20] Deleuze and Guattari use this notion to describe any type of pattern or code that stakes out a territory. They explain the refrain by describing the three ways that it "territorialises": firstly, the refrain creates a point of stability in a field of chaos; secondly, it demarcates a stable habitat around that point of stability; and thirdly, the refrain opens out from this point of stability, into cosmic uncertainty.[21] These components correspond to forces of chaos, terrestrial forces, and cosmic forces, all of which come together in the refrain. The refrain thus functions to territorialise them into rhythmical, codified patterns, essentially encoding and controlling the chaos of the world. Issuing forth from chaos, the refrain states an authority, stakes a claim; it is, as Deleuze and Guattari write, "the bird [that] sings to mark its territory . . . a little tune, a melodic formula that seeks recognition."[22] It is found in horror stories, fairy tales, and lieder, where it mixes and makes simultaneous the different types of forces.[23]

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[20] See the eleventh plateau, "The Refrain," in Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1987).
[21] Deleuze and Guattari, *A Thousand Plateaus* 311.
[22] Deleuze and Guattari, *A Thousand Plateaus* 312.
[23] The connection that Deleuze and Guattari make here, between the refrain and linear narrative, is significant with regard to the relationship between the refrain (in music) and what they call the minoritarian use of language (in literature). See Chapter 3, "Music and Machine" 72-3. In addition, see Ronald Bogue, "Minority, Territory, Music," *Introduction to the Philosophy of Gilles Deleuze*, ed. Jean Khalfa (New York: Continuum, 2003) 114-32. On lyrics in hip hop as a minoritarian language, see Russell A. Potter, *Spectacular Vernaculars* (New York:

Milieus and rhythms are in turn the elements from which territories are formed. A milieu is a "coded block of space-time"[24] which is formed from a "periodic repetition."[25] Despite its codification, a milieu is not in stasis, but rather in a continual process of transcoding; of coming into contact with other milieus and transforming itself. It is only ever provisionally stable in terms of its periodic repetitions. Milieus are not rhythm, however, as rhythm is what occurs between milieus, or between a milieu and chaos. Deleuze and Guattari delineate rhythm from any apparent correspondence to measure or meter, by affirming that meter may be regular, but rhythm "is the Unequal or Incommensurable, always in a process of transcoding," operating "not in a homogenous space-time, but with heterogenous blocks."[26] "Rhythm, in short, is difference, or relation – the in-between whereby milieus communicate with one another."[27] Ronald Bogue uses the example of the human body to illustrate the relationship of milieu and rhythm:

> Consider, for example, the human body. Its various components – the heart, lungs, brain, nerves, etc. – may be viewed as so many milieus, each with its own rate of periodic repetition. The rhythms of the body, however, take place between the various milieus, the heart's regular measure, for instance, fluctuating in response to neural and hormonal stimuli, changes in breathing rate, alterations in the external environment, etc. In a sense the heart's periodic repetition produces rhythm, but not by reproducing an identical measure and not in isolation from other milieus. Its regular meter is a vital

SUNY Press, 1995), and Tony Mitchell, "Doin' Damage in My Native Language: The Use of 'Resistance Vernaculars' in Hop Hop in France, Italy, and Aotearoa/New Zealand," *Popular Music and Society* 24.3 (2000): 41-54.

[24] Ronald Bogue, "Rhizomusicosmology," *Sub-Stance* 66 (1991): 88.

[25] Deleuze and Guattari, *A Thousand Plateaus* 384.

[26] Deleuze and Guattari, *A Thousand Plateaus* 385.

[27] Bogue, "Rhizomusicosmology" 88.

> pulse, not a reproduction of the same, whose regularity and variability are inseparable from the inter-milieu rhythms of difference.[28]

Territorialising is an act that affects milieus and rhythms, territorialising them such that "milieus emerge as qualities, and rhythms become expressive."[29] A significant aspect of the creation of a territory is that it necessarily entails an element of deterritorialisation; that is, it engages an unfixing or breaking down of established territories in order to create its own.

It is at this point that Deleuze and Guattari recognise the importance of music. In their understanding, music uproots the refrain from its territory; it is a "creative operation which consists of deterritorialising the refrain."[30] In other words, music can break down the codification of forces that are integral to creating territories. The refrain is not the origin of music, but rather a means of warding off music's explorations through its stabilising influence. However, through deterritorialisation, music can create new methods of organisation or disorganisation. Deleuze and Guattari find that such musical deterritorialisation can take place in a number of different ways, citing LeRoi Jones' interpretation of African-American musical styles. In this example, territorial African work songs are deterritorialised in American slave-labour conditions, and in turn reterritorialised through minstrel shows.[31]

In addition, Deleuze and Guattari also find the refrain at work in the broad problems and issues that define different musical periods.[32] For example, they see a correspondence between the refrain's three elements – namely the organising point, the territorial habitat, and

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[28] Bogue, "Rhizomusicosmology" 88-9.
[29] Bogue, "Rhizomusicosmology" 89.
[30] Deleuze and Guattari, *A Thousand Plateaus* 300.
[31] Deleuze and Guattari, *A Thousand Plateaus* 137-8. Deleuze and Guattari also saw Bartók's assimilation of folk traditions as a conversion of territorialising refrains into deterritorialising refrains. Deleuze and Guattari, *A Thousand Plateaus* 349-50.
[32] For a detailed overview of this point, see Ronald Bogue, *Deleuze on Music, Painting and the Arts* (New York: Routledge, 2003) 38-53.

the cosmic line – in the musical eras and defined as Classical, Romantic and Modern. For them, "the task of the classical artist is that of God himself, to organize chaos"; faced with the challenge of bringing order from chaos, the composer creates a hierarchical succession of musical ideas.[33] The task of the romantic artist is somewhat different, involving the foundation of a territory, and the relationship between territory and earth. Deleuze and Guattari see this played out in the writing of program music, and the Romantic *Lied*, which they describe as "the musical art of the landscape, the most pictorial of musical forms, the most impressionistic."[34] The modern artist opens the musical territory to cosmic forces, bringing into perception that which was imperceptible. In many modern composers, Deleuze and Guattari see this played out specifically through an encounter with the imperceptible force of time.

To qualify the relationship between time and the refrain, Deleuze writes that "Time is not an a priori form; rather, the refrain is the a priori form of time, which in each case fabricates different times."[35] Therefore, through deterritorialising the refrain, music has the efficiency of fabricating, or creating, time. For Deleuze, music and cinema share the ability to make invisible and inaudible forces perceptible. In particular, music can make audible such "nonsonorous forces like Duration and Intensity," making the inaudible force of time audible.[36] Deleuze links his concepts of cinema with music when he defines the refrain generally as a prism, or a crystal of spacetime: cinema breaks the sensory-motor link and makes time visible through this crystallised time-image; music, through the deterritorialisation of the refrain, opens sonority out onto the inaudible force of duration. On cinema, Edward O'Neill writes, "In the cinema's pedagogy of perception, perception itself is a temporal process: the cinematic mechanism thus becomes a mechanical model for the

[33] Deleuze and Guattari, *A Thousand Plateaus* 338.
[34] Deleuze and Guattari, *A Thousand Plateaus* 319.
[35] Deleuze and Guattari, *A Thousand Plateaus* 349.
[36] Deleuze and Guattari, *A Thousand Plateaus* 343.

temporal process by which perception grasps an object which is no longer conceived of as static and timeless."[37] Cinema can thus function as a way that our perception becomes aware of the continually differentiating power of temporality. Music too can function in this sense, through its deterritorialisation of the refrain. Following a critical examination of different types of music, we may discover how this deterritorialisation creates new relationships with time, revealing aspects of musical time that do not fit comfortably within conventional temporal frameworks. When we think about music in such a way, our concept of time can be constantly made and remade, without regard for spatial representations, or the supposedly universal conditions of temporality.

Rhizome

Deleuze and Guattari used the notion of the "rhizome" to describe this creation of new relationships and proliferating connections in thought and music. In particular, rhizomatic thought is contrasted with "arborescent" thought.[38] When we formulate systems of knowledge, we often follow a pattern that has dominated Western thought for much of history: starting with a centre or subject, we formulate concepts and knowledge in a directed way, supplanting one proposition with another and thus creating an ordered hierarchy. This way of creating knowledge can be thought of as arborescent (or "tree-like"). Arising from Deleuze's distaste for communication and consensus,[39] it follows that he desired alternative forms of thought: the hierarchical or directed way of thinking is yet another way of homogenising the powers of thought.

As an alternative, Deleuze and Guattari developed the concept of rhizomatic thought, which spreads by a random and chaotic proliferation of connections, without an ordering centre from which it emanates. They borrow the term "rhizome" from its botanical usage,

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[37] O'Neill.
[38] Deleuze and Guattari, *A Thousand Plateaus* 3-26.
[39] As discussed in Chapter 1, "Music and Thought" 10-12.

where it is used to describe those types of plants that send out runners (such as the strawberry plant). In a rhizome, any point may act as a beginning or end, connecting to any other point.[40] An aborescent thought process imposes the verb "to be." Rhizomatic thought functions with the conjunction "and": the rhizome is always the connection, the relationship, or the in-between. By identifying these two types of thought, Deleuze and Guattari aim to create a pluralism of styles of thought, not a binary opposition, but rather pointing out the fact that "all distinctions and hierarchies are active creations, which are in turn capable of further distinctions and articulations."[41] Arborescent thought can also be explained as a kind of detective fiction, where we add one fact to another, in order to build an accurate and truthful representation of a state of affairs. Rhizomatic thought is more like science fiction, where concepts and ideas are created and remade in novel ways. Studying music in this manner implies encountering musical examples and music theory in a context of multiple connections. Deleuze and Guattari's approach to music encouraged such connections, in that they did not aim to accumulate knowledge about music; instead, as Bogue says, they sought out the ways in which theory and music can "mutually illuminate one another."[42]

Bogue goes so far as to characterise Deleuze and Guattari's approach to music as, "with a certain Panglossia bravura, a 'rhizomusicosmology.'"[43] His neologism for the study of music describes an approach to creating connections, and the opening of music towards forces of the Cosmos; in other words, the rhizomatic and deterritorialising manner in which music functions. As an approach to the study of music, rhizomusicosmology does not propose a new technical apparatus for the analysis of musical structure; it is not as though we replace current methods of music research with a Deleuzo-Guattarian counter-discipline, and an appropriated

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[40] On Deleuze and "connections," see John Rajchman, *The Deleuze Connections* (Cambridge, Mass.: MIT Press, 2000).
[41] Claire Colebrook, *Understanding Deleuze*, (Crows Nest, N.S.W.: Allen & Unwin, 2002) xxviii.
[42] Bogue, "Rhizomusicosmology" 85.
[43] Bogue, "Rhizomusicosmology" 85. In Chapter 2 of *Deleuze on Music*, Bogue re-works his article "Rhizomusicosmology," presenting a more direct rendition of Deleuzian concepts, and thus abandoning his own neologism.

technical vocabulary. Rather it offers, "a means of construing music as an open structure that permeates and is permeated by the world, a reading of the cosmos and music not as mechanical and mathematical but as machinic and rhythmical."[44]

In *A Thousand Plateaus*, Deleuze and Guattari present Messiaen as a composer who engages with both of these aspects of music, an artist whose renowned rhythmic inventiveness has changed how we think of music and time.[45] A number of Messiaen's compositional techniques function as key examples of new approaches to time: in particular, his use of added values, rhythmic characters and nonretrogradable rhythms.[46] An "added value" refers to the technique whereby one short rhythmic value is added to the components of any rhythm, resulting in a new rhythm that will not reside within the original meter. Through the progressive alteration of rhythm through addition and subtraction, the composer is able to create "rhythmic characters": permutations of rhythm that advance and retreat through the course of time, without regard for regular meter. Non-retrogradable rhythms are those that have a common central value, and are the same whether played as written, or in retrograde (in other words, a rhythmic palindrome). Bogue interprets these techniques as reflecting specific images of time: "In added values ... one encounters an ametrical, staggered time of variable intensities; in rhythmic characters, an active, germinal flux of time; and in non-retrogradable rhythms, a circular and reversible time in which beginning and end are confused."[47] These new images of time correspond to the definition of rhythm that Messiaen proposed, whereby rhythmic music was that which scorned regular metrical structure in favour of the free rhythms of nature. This definition of rhythm strongly resonates with

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[44] Bogue, "Rhizomusicosmology" 85. On the term "machinic" and its use by Deleuze and Guattari, see Chapter 3, "Music and Machine" 68-71.
[45] See Paul Griffiths, *Olivier Messiaen and the Music of Time* (Ithaca: Cornell University Press, 1985) 15-18.
[46] For a basic description of these techniques, see Bogue, "Rhizomusicosmology." For further explanation and analyses see Olivier Messiaen, *The Technique of My Musical Language*, trans. John Satterfield, 2 vols. (Paris: Leduc, 1956), and also Griffiths 90-106; 190-210.
[47] Bogue, "Rhizomusicosmology" 95.

Deleuze's understanding of repetition, and such a resonance has ramifications for our interpretations of music.

Repetition

Our everyday understanding of the term "repetition" may be represented through a number of formal characteristics that appear to be inherent in "repetitive music." For example, we may identify as "repetitive" recurring pitches and pitch relationships, perhaps in the form of limited melodic and harmonic material. Repetitive rhythm may occur in the form of metrical regularity, as found, for example, in looping drum patterns. Musical form may present a type of repetition, in the way of recurring themes, such as verses and choruses. And lyrical content may repeat, for example in the recurrence of a poetic refrain. This image of repetition relies on a representation of *sameness* in the musical areas of pitch and rhythm, as well as lyrical and apparently literal sameness.

Such a commonsense understanding of repetition is sharply contrasted with Deleuze's understanding of repetition. For Deleuze, the concept of repetition held a special significance, forming a key concept in one of his most difficult works, *Difference and Repetition*.[48] In this work, Deleuze described what he saw as a profound change in the contemporary era, whereby traditional Western metaphysics had been supplanted by the play of "complex repetition" and "pure difference." These two terms underpin the Deleuzian critique of the Western system of representation. A "bare" or *simple repetition* represents how we commonly think of repetition, in terms of sameness or resemblance. In contrast, a "clothed" or *complex repetition* disguises a difference within itself. Repetition, within a system of representation, is viewed negatively, as a lack of difference, without acknowledging any kind of disguised difference. Difference,

[48] Gilles Deleuze, *Difference and Repetition*, trans. Paul Patton (London: Athlone Press, 1994) 70-128.

within a system of representation, is viewed negatively as a lack of sameness, whereas in Deleuze's understanding, pure difference is constitutive of divergence and variation.

Following this definition, complex repetition has a multifaceted relationship to time, a fact that affects how we conceive of rhythmic repetition in music. Messiaen and Boulez heavily influenced Deleuze's ideas in this regard. In the case of Messiaen, Deleuze shares with him the understanding that truly rhythmical music actually denies simple metrical repetition; rather, it puts rhythm into a constant state of variation, creating unequal blocks of duration. For Boulez, this distinction is played out in the contrast between what he calls "pulsed time" and "non-pulsed time." Deleuze takes up this distinction, linking it to the Stoic's understanding of time, whereby time consists of two modes: Chronos, the time of ordered and successive moments, as found in music that contains regular meter; and Aion, the time of the Cosmos that pre-exists our quantitative "clock-like" ordering of time – this is the free-floating time beyond the quantities of metrical division. Conceiving of time through this opposition has its roots in Classical Antiquity, whereby the Greek philosophers could talk about the time before time existed. Deleuze saw that both Messiaen and Boulez composed music that engaged with the time of Aion, or non-pulsed time: Messiaen through compositional techniques that put rhythm into constant variation, ignoring meter and time signatures altogether; Boulez through related techniques that ignored the traditional musical designation of the harmonic-vertical and the melodic-horizontal, forming rather a diagonal, or transversal, between these elements (what Deleuze would call a *line of flight*).[49] For Deleuze, such approaches to musical time indicate the flow of complex repetition, the creation of difference, a deterritorialisation of temporal models, an invention of unique and incommensurable times.

[49] Gilles Deleuze, "Boulez, Proust and Time: 'Occupying without Counting'," *Angelaki* 3.2 (1998): 69-74. Boulez attributes this to Webern, in Pierre Boulez, *Notes of an Apprenticeship*, trans. Herbert Weinstock (New York: Knopf, 1968) 383.

Continuing from this understanding of time, the key paradox thus becomes: Can we think of rhythmically repetitive music, pulsed music or music that partakes in the time of Chronos, as able to create a sense of non-pulsed, free-flowing temporality situated on the side of Aion? In approaching this question, I examine a number of aspects of recorded music that present responses to this paradox: firstly, the exploration of time-pitch relationships and time stretching procedures in recorded sound; and secondly, the notion of a "metallic synthesis" of Chronos and Aion, forged in certain repetitive music. Throughout the following discussion I focus on contemporary electronic dance music, as a form of music in which these concepts and paradoxes are crucial in the creation of musical works.

Time and pitch

Deleuze looked at particular affects of the cinematic apparatus to elucidate how images of time are created through the art of filmmaking. In a similar vein, we might turn towards the peculiar affects of recorded music, in order to develop an understanding of how certain recording technologies are used to manipulate duration and create new images of time. In particular, recent innovations in technology have enabled the manipulation of recorded sound in ways that challenge our understanding of the relationship between time and pitch. Our common understanding of this relationship reflects a direct correlation between the two elements: if we shorten the temporal duration of a sound, we would also raise its pitch, or frequency. Similarly, if we lower the pitch of a sound, we lengthen its temporal duration. In addition, the timbre, or formant of a sound is forced into this correlative: increasing pitch or duration presumes a "raising" of formant while lowering pitch or duration presumes a "lowering" of formant.[50] This established hierarchy is well illustrated through the mechanics of the analogue turntable: for example, when an acetate or vinyl disc is rotated at a higher or lower speed than that at which it was recorded, we will intuitively associate the resulting

[50] On the issue of timbre and formant with relation to the voice, see Chapter 3, "Music and Machine" 76-81.

sound with a commonsense understanding of the correlation between time and pitch. At this point, we have succumbed to a transcendent model, deferring to a homeostasis of the relationship between time and pitch, or what could be seen as a homogenisation of thought.

The time-pitch relationship in an analogue recording also relies to some extent upon a spatialisation of time: the recording of sound takes a singularity, turning what was an intensively durational experience into an extensively spatial representation. Time is plotted on the x-axis, measured in circular grooves, and quantified by a constant circumnavigation at speeds of 33.3 or 45 revolutions per minute. Amplitude is plotted on the y-axis, and the intensity of sound is turned into a topographic inscription, producing a spatialised sonic landscape. In the image of these two axes, time becomes equivalent to the turning hands of a clock, measured and quantified by rotational speed. The spatialised image of time implies the existence of a representational system, whereby sounds "become packaged objects for the clockspace of mechanical duration, two measures [pitch and duration] in reciprocal presupposition."[51] In this image of time, we are presented with a set of axes that inherit their structure from common practice notation: in a similar manner to how a score solidifies musical experience as abstract relationships, the recording is seen as an archive. Viewed in this way, sound recording technology merely acts as a capture device for sonority and duration.

However, sound recording technology is often used in ways that escape the above concepts, treated by musicians not as an archive, but as a subversive diagram.[52] While we may have envisaged the recording as a bastion of representation, not unlike a musical score,

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[51] Robin Mackay, "Capitalism and Schizophrenia: Wildstyle in Full Effect," *Deleuze and Philosophy: The Difference Engineer*, ed. Keith Ansell-Pearson (London: Routledge, 1997) 249.

[52] The use of musical and technological accidents provides an example of this subversive usage. See Chapter 1, "Music and Thought" 24-29.

instead it brings with it a hidden insurrection against the Great Abstract Musical Work.[53] When sound is fused with vinyl, instead of just reproducing, the sonic diagram produced what Robin Mackay calls a "machinic surplus value."[54] That is, a surplus value that goes beyond the apparent intentions and conventional mechanics implied by the medium. In the example of a vinyl record, this surplus value is rendered tactile through the DJ's use of the "scratch." At this point, the record no longer functions like a score, it is not representing, merely transducing.[55] Mackay writes that "as soon as the deterritorialisation of sonic matter into vinyl abstracts it from the moment, and makes music into this random-access memory available time and time again, the sonic matter is susceptible to temporal mutation, warping, looping."[56] In other words, the transformation of the intensive duration of sound into the extensive space of vinyl yields a surplus and subversive value, beyond the apparent confines of time-pitch correlatives, and spatial images of time. Recorded sound becomes a "RAM-rod" (random-access memory) held by invading DJs, breaking down the door to the "ROM-museum" (read-only memory). In this sense, the machinic surplus value, that which escapes representation, becomes a means for temporal mutation, for creating new images of time.

Steve Reich's unrealised composition *Slow Motion Sound* provides an excellent rethinking of the above issues about recorded sound, time and pitch. Conceived in 1967, Reich's concept for the work dealt with the correlation of time and pitch, thinking beyond what was technically possible at the time, and beyond the apparent absoluteness of time-pitch relationships. The score for the work consists solely of the following instructions: "Very

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[53] When the recording is conceived of within a representational model, it may be construed as an even more accurate reflection than a score, in that it can "includes" even more "absolute" aspects of the Abstract Musical Work. However, this model neglects the many aspects of a recording, and the circumstances of its reproduction, that result in an infinite amount of variation each time a piece of music is "played back." This might include, for example, noise, static, or technological accidents and anomalies. See Chapter 1, "Music and Thought" 24-29.
[54] Mackay 249.
[55] Mackay 251.
[56] Mackay 251.

gradually slow down a recorded sound to many times its original length without changing its pitch or timbre at all."[57] In *Writings About Music*, Reich comments further on this idea:

> *Slow Motion Sound* (1967) has remained a concept on paper because it was technologically impossible to realize. The basic idea was to take a tape loop, probably of speech, and ever so gradually slow it down to enormous length *without lowering its pitch.* In effect it would have been like the true synchronous sound track to a film loop gradually presented in slower and slower motion.
>
> The roots of this idea date from 1963 when I first became interested in experimental films, and began looking at film as an analog to tape. Extreme slow motion seemed particularly interesting since it allowed one to see minute details that were normally impossible to observe. The real moving image was left intact with only its tempo slowed down.
>
> Experiments with rotating head tape recorders, digital analysis and synthesis of speech, and vocorders all proved unable to produce the gradual yet enormous elongation, to factors of 64 or more times original length, together with high fidelity speech reproduction, which were both necessary for musical results.
>
> The possibility of a live performer trying to speak incredibly slowing did not interest me since it would be impossible, in that way, to produce the same results as normal speech, recorded, and then slowed down.

[57] Steve Reich, *Writings About Music* (New York: New York University Press, 1974) 14.

> . . . Though by now I have lost my taste for working with complex technology I believe a genuinely interesting tape piece could still be made from a loop of speech, gradually slowed down further and further, while its pitch and timbre remain constant.[58]

In this work, Reich directly challenged the transcendence of the image of time apparently posited by analogue recording technology. As such he has created a new image of time, by understanding that temporality in recorded sound need not refer to a transcendent state of affairs; rather, it presents a problem, or act of thought, constituted through a creative process.

Time stretching

The limitations that Reich faced in his attempts to realise *Slow Motion Music* have been significantly altered through developments in "time stretching" using digital signal processing (DSP). Reich's filmic inspiration for the work provides us with a useful starting point for thinking about the significance of these developments. The film analogy that he refers to operates at the level of 64 frames a second: it functions underneath our visual apparatus, allowing the cinematic technology to perform time stretching functions outside of our level of perception. In slow motion, fast-forward, and rewind, we will often notice qualities that we would not otherwise be able to see: for example, the slow growth of an organic form (like a flower), or the overall pattern of road traffic over a long period of time, and the complexities of movement that take place in such processes.

> Following Bergson we might say that as beings in the world we are caught on a certain spatio-temporal register [. . .] At stake with art, then, might be an altering, a switching, of this register. New [. . .] technologies can do this. Switching temporal registers: time-lapse photography producing firework flowers and flows of traffic; slow-motion film

[58] Reich 15-6.

> revealing intricate moments which otherwise are a blur. [. . .] Indeed, at this point the new media coincide with art: indeed, the new media take on an aesthetic function (a deterritorialising function).[59]

The new media of digital audio operates at level of depth far beneath our auditory apparatus, typically between 44,100 and 96,000 samples of sound per second. After being recorded at this speed, acoustic intensity can be "manipulated so as to operate *underneath* the stratification of pitch/duration which depends on the differentiation of the relatively slow comprehensive temporality of cycles per second."[60] In other words, through digital recording and DSP, concepts that in 1960s and 70s were impossible to realize can be achieved by software running on a consumer computer.[61] For example, purely software-based DSP technology enables this manipulation of time and pitch independently of each other, and in real-time: that is, as we hear a sound, we can alter time and pitch independently of each other, as well as timbre, or formant. Fatboy Slim's track "The Rockafeller Skank", from the album *You've Come a Long Way, Baby* provides an example of a vocal sample being manipulated in this manner: while the track's principal vocal sample slows down, its pitch remains the same, despite slowing almost to a halt; the sample then speeds up, with the pitch remaining the same.[62] Following an example such as this, we can see that recorded sound is not necessarily "frozen into place" by technology,[63] but rather it is digitally liberated from one of its fundamental ordinances. In a sense, this process can be understood as a sonic form of motion

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[59] S. O'Sullivan, "The Aesthetics of Affect: Thinking Art Beyond Representation," *Angelaki: Journal of the Theoretical Humanities* 6.3 (2001): 127.
[60] Mackay 255.
[61] This technique relies on implementation of the Fast Fourier Transform algorithm. See E. Oran Brigham, *The Fast Fourier Transform and Its Applications* (London: Prentice-Hall, 1988).
[62] In this track, time stretching aids the "break down" and "build up" of rhythmic (and kinetic) momentum in the track. Also, on the issue of race as it pertains to the use of vocal samples in dance music (as is used in this example), see Alexander G. Weheliye, "'Feenin': Posthuman Voices in Contemporary Black Popular Music," *Social Text* 71 (2002): 21-47, and Joseph Auner, "'Sing It for Me': Posthuman Ventriloquism in Recent Popular Music," *Journal of the Royal Musical Association* 128 (2003): 98-122.
[63] McClary 141.

capture,[64] analogous to the technique used in cinematic special effects and animation, whereby the technology "plasticizes time into malleable material."[65]

The use of digital time stretching subverts the distribution of time and amplitude on x- and y-axes, breaking with conventional hierarchies inherited from common practice notation. It frees the line, draws a diagonal across the horizontal and the vertical, produces a multilinear system, where, "the transversal breaks free of the diagonal as a localizable connection between two points."[66] This is the technique that Deleuze identified in Boulez: the line that breaks free of any horizontal or vertical determination, forming a diagonal, a deterritorialisation, or a line of flight. The line is no longer construed spatially as a path between two points; instead, like the time-image in cinema, this music gives us a glimpse of duration that is not chronological, historical, universal, or absolute.

Perhaps the genre of contemporary music that has come to be most closely associated with this type of time and pitch manipulation is drum and bass. Originally referred to as jungle by the mainstream music press, drum and bass (commonly abbreviated as dnb) is a term that the artists adopted when jungle's popularity soared in the early 1990s, and they sought to distance themselves from the media frenzy that surrounded the burgeoning scene. Drawing heavily from the music and culture of hip hop and b-boys, dnb fused the African-American street culture of hip hop together with the warehouse rave culture that had grown around the Chicago and Detroit music and drug subcultures, creating a innovative mutation of these forms.[67] From hip hop, dnb appropriated the production technique of using repeating drum "breaks," commonly taken from classic 1970s funk recordings. From rave culture, dnb

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[64] See Kodwo Eshun, *More Brilliant Than the Sun: Adventures in Sonic Fiction* (London: Quartet, 1998) 175-93.
[65] Eshun 10.
[66] Deleuze and Guattari, *A Thousand Plateaus* 297.
[67] On the notion of mutation on electronic dance music, see Alexei Monroe, "Thinking About Mutation: Genres in 1990s Electronica," *Living through Pop*, ed. Andrew Blake (London: Routledge, 1999) 146-58. On the genre of "techno" music as a Deleuzian "rave assemblage," see John Fitzgerald, "An Assemblage of Desire, Drugs and Techno," *Angelaki* 3.2 (1998): 69-74.

producers acquired a sense of electronic experimentation, involving the inventive use of digital samplers and software-based sequencers.

In addition to these influences, dnb strongly references Jamaican dub music, most notably sharing dub's attitude to a recorded piece of music. In particular, dub can be defined as "the creation of a sound world via electronic studio techniques; routinely it is a form of electronically produced music that emphasises rhythmic drum and bass [. . .] and it does *not* refer to musical performances outside itself, as did most recording before the 1970s."[68] This image of the recording as a singular affect, without reference to an original performance, is notably contrasted with the established image of recorded music based on a logic of resemblance to an original scenario. To this effect, dub introduced the dubplate, often a one-off pressing of a specific, electronically processed "version" of music, and the performance via the travelling Sound System. The Sound System's reliance on the heavy bass effects of large-scale PA systems and electronic soundscapes are also influences that pass from Jamaican dub to dnb: both styles are concerned with the creation of virtual sound worlds, in which there is an "engineering of space and time" through the use of electronic technology.[69]

Furthermore, dub and dnb are concerned with a decentring of subjectivity: for the participants in the sound world of the Sound System, dub "dimishes both memory and future-focused anxiety, so that the listener can be absorbed by the present moment."[70] Dnb also aims for this affective sound world in the dance party environment, etymologically inverting the second letter of dub, producing a further slippage, or mutation. The *u* is twisted 180°, thus forming *n,* which in mathematics refers to an indefinite number: *u,* or *you*, becomes *n.* While there was a simple, singular image of time and subjectivity that apprehended the record as

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[68] James Ingham, "Listening Back from Blackburn: Virtual Sound Worlds and the Creation of Temporary Autonomy," *Living through Pop*, ed. Andrew Blake (London: Routledge, 1999) 123.
[69] Vivien Goldman quoted in Ingham 123.
[70] Simon Reynolds and Joy Press, *The Sex Revolts: Gender, Rebellion and Rock 'N' Roll* (London: Serpent's Tail, 1995) 178. The authors highlight the particular importance of marijuana in this temporal experience.

archive, and the accompanying stratification of pitch and duration, dnb challenges and deterritorialises the image of subjectivity formed through recorded sound, presenting a multiplicity of new affects and concepts, a becoming through an *nth* degree of time images.[71]

An early example of the dnb style is the track "Terminator," released by pre-eminent producer Goldie. Based on a vocal samples taken from the movie *Terminator,* the track features a quotation from the young John Connor's character saying, "You're talking about things I haven't done yet." To accompany the vocal sample, Goldie stretches the track's main drum loop, pitching it at a different frequency, or "note," at every four metric beats within a four bar cycle. However, while the pitch (or frequency) of the drum loop changes at each bar, the duration of the sample and tempo of the track remain constant. At the time of this track's release, such a manipulation of time stretching was ground breaking: essentially, it took the time stretching function of the digital sampler, originally designed as a utility in the sampling process, and turned it into a revolutionary new sound effect. It did this by stretching the circuitry of the sampler beyond its usual functions, a technique that was seminal in defining the emerging musical style. We can see this technique as a process of the refrain: the time stretching function is construed for a certain means; through an accident it is deterritorialised, and appropriated for new affects; it is then reterritorialised into a defining constituent of a new music genre, or territory.

"Matter of Fact" by Roni Size, from the album *New Forms,* provides another example of extreme uses of sampling and sequencing technology. In this track, Size's use of panning sends digitised snare drum hits rapidly from one speaker to another, deterrirorialising the sonic environment; moving closer to the speed of light, gliding silently but speedily through the centrally panned refrain and opening out into the cosmos. Drum and bass pioneers Marc and Dego, recording under the name 4Hero, also utilise digital sampling technology creatively in the track "We Who are Not as Others," from their album *Two Pages*. In particular, the

[71] On becoming and subjectivity, see Chapter 3 "Music and Machine" 65-67.

chaotic, syncopated juxtaposition of highly contrasted drum kits in this track reflects a proliferation of different space-times, creating an "impossible" image of time in which we are presented with sound worlds that could not have existed together, if the recording was considered merely an archival deposit of an original sound event. Each different drum kit, although highly doctored and deformed, brings with it its own sonic space-time, different decays and filters, carrying the smallest trace of their original location in space-time. In tracks such as these, the influence of the three dimension sound scapes of dub is obvious, and they are conceived of in the wake of relativity theory, where time and temporal mutation are at the forefront of the producers' mind. As Goldie says, "the loops, they've been sculpted, they're in 4D."[72]

Throughout these drum and bass tracks, there is a manipulation of digital sound that operates at a level underneath our perception, thus destroying our commonsense understandings of temporal hierarchies, such as the stratification of pitch and duration. In addition, in dub and dnb we can appreciate another manipulation that plays with, and operates underneath, the limits of our perception, and the heirachy between recorded sound and listening subject. Dnb in particular plays with those frequencies at the lowest parts of our audible perception, and below the point at which frequencies breach the human capacity for hearing: in this sub-bass realm the ears give way to the skin, and the body feels sound. A production technique frequently exploited in dnb involves synthesised bass glissandi that drop from within our audible range, across the threshold of our audible perception, and into the realm of the felt vibrations in the body. In dnb the body becomes synesthesic: the skin gains the capacity to hear, and the ears learn to feel. Just as the disappearance of samples per second under our capacity for hearing allows manipulation of time, so too does the point where sound disappears into our body – from 100Hz down to 20Hz and below – allow a manipulation of

[72] Goldie quoted in Eshun 74.

the body in real physical terms: our bodies are literally abducted by audio, and our space-time is altered as a result.[73]

What is occurring in these works is a pushing at the boundaries of representation, where aspects that would normally be "sloughed-off" as meaningless (through the Western system of representation) are instead incorporated into the music: through the manipulation of the mechanics of the musical medium, we are presented with a deterritorisation of our image of musical time and space. In music software, functions that alter the time and pitch of recorded sound form an important part of the production process for electronic dance music. When musicians manipulate technological means to ends that they were not designed for, they have a sense that they are "producing" or "engineering" time. This feeling of production is displayed by the names that software companies give to their time-altering software, such "Time Factory," and "Pitch Doctor," for example. This technology has been used to create many images of time, quite unlike a capitalist factory in which the image of time is homogenised into another correlative form of temporal hierarchy: the equation "time = money." The times produced are too malleable to fit within anything other than an unconventional factory: a funhouse rather than industrial workhorse, where multiple, incommensurable models of musical time are created.

Experiments with musical time, such as these, press at the boundaries of representation, opening new transversal lines of flight. However, one of the major paradoxes facing the creation of new images of time through the manipulation of the recording medium still remains in these examples: all of the music relies upon musical structures that are highly repetitive in metrical terms. That is, they conform to traditional meters, most often the four beat structure shared with most popular music styles of the twentieth century. They do not

[73] Eshun 71-2.

exercise the same types of rhythmic characteristics that Deleuze saw in Varese, Messiaen and Boulez: the rhythmic structures in evidence do not seem to display any kind of "constant variation" in meter. Our initial paradox thus returns: how can rhythmically repetitive music actually create new images of time?

Metallic synthesis

In approaching this paradox, the concept of "metallisation" is also useful. This term is itself borrowed from musician and philosopher Richard Pinhas, in a form of conceptual "borrowing" and "transformation" along the lines of Deleuze's own practice.[74] Pinhas' influence on Deleuze was quite strong; his published and unpublished work was utilised by Deleuze, both in *A Thousand Plateaus*, and in his book on painter Francis Bacon. Writing on Pinhas, Timothy Murphy and Daniel Smith describe him as:

> . . . an example of an artist who creates an art-philosophy, a set of percepts, out of the materials of his/her art rather than one who attempts to imitate or represent established philosophical concepts in aesthetic terms.[75]

In Pinhas' development of just such an "art-philosophy," he confronted this key aspect of pulsed music's relationship to non-pulsed time, to which his solution was the notion of a *mixture of time*: a music that contains seemingly simple repetitions and strong metrical characteristics, yet which produces complex repetitions and freely rhythmical blocks of duration.

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[74] For example, Deleuze's aforementioned transformation of Bergsonian thought, or his appropriation and transformation of Antonin Artaud's concept of the body without organs. See Chapter 3, "Music and Machine" 74-76.

[75] Timothy S. Murphy and Daniel W. Smith, "What I Hear Is Thinking Too: Deleuze and Guattari Go Pop," *Echo: A Music-Centered Journal* 3.1 (2001). http://www.humnet.ucla.edu/echo (10 December 2003).

This mixture Pinhas described as a *metallisation* or *metallic synthesis*, citing as contemporary examples from the late 1970s the work of Philip Glass, along with Maurice Ravel, Steve Reich, Robert Fripp and Brian Eno. This "metallic" music he characterised in the following way:

> It's a mixture which would be situated on the side of Aion, but which would be a very singular qualification of Aion. And I have the impression, at the level of music, that one finds this time in a pulsed time, which is paradoxical, therefore a pulsed time on the side of Aion, which strolls about like that on an infinitive line, and that this pulsed time, by a series of extremely strong displacements, I'm thinking specifically of the music of Philip Glass, continuous displacement, for example, at the level of accentuations, this displacement would happen to produce an extra dimension. [. . .] Therefore, on the basis of this mixture or kind of interface between different times, [. . .] one would attend to the innovation of this kind of time, which is a particular form of Aion, and which borrows some elements from a chronological time. Within the same idea, I have the impression that, on the basis of this pulsed time, which is directly opposed to the non-pulsed time of which Boulez and a whole musical school speak, I have the impression that it is on the basis of a certain form of pulsed time [. . .] that one happens to see executed movements of speed and slowness and extremely important differential executions. Once more, I'm thinking of the music of Philip Glass and certain Englishmen. They make repetitive metallic music, they really play on the sequences, on the variations of speed inside these sequences, and at the level of a whole musical piece or even a whole diagram they are going to make the speeds of the sequences vary, they are going to produce interferences or resonances, not merely harmonic ones but resonances of speed between sequences [. . .] Paradoxically as well, this play of speeds,

> which is extremely interesting, this execution of movements of speed will be found on the side of a certain pulsed time, by locating it on the side of Aion.[76]

Such a metallisation or mixture of time clearly occurs in the music of Glass and Reich: despite the extreme metrical regularity of their minimalist techniques, both the micro-sonic structures of the music and its extended lengths can tend to make chronometric force melt away, producing novel and distinct senses of temporality. Having already discussed a particularly interesting composition by Reich, the examples that I draw upon here come not from minimalism, but from experimental electronic musicians Autechre, who share something of an affiliation with dnb.

Along with fellow artists signed to the Warp record label – including Aphex Twin and Squarepusher – Autechre (producers Sean Booth and Rob Brown) have at various times been labelled with the genre descriptor "intelligent dance music," or IDM. Spawned in part from the "come down music" genre of the dance party scene, IDM has been marked by an intensification of the syncopated rhythmic gymnastics and highly edited beats of jungle and dnb, and branded as music for the mind, more than the body.[77] Producers of this music, whilst working within quantised and highly repetitive metrical sequences, are often able to expand their image of time through use of what we might call a "mad meter," introducing extreme variations of speed and slowness within programmed sequences; that is, the creation of free-floating blocks of non-pulsed time, or heterogenous duration, through the execution of movements originating on the side of pulsed time.

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[76] Pinhas quoted in Gilles Deleuze, "Vincennes Seminar Session of May 3, 1977: On Music," *Discourse: Journal for Theoretical Studies in Media and Culture* 20.3 (1998): 207-8.

[77] The implied value judgement in the term "Intelligent Dance Music" could be seen as reinforcing a mind-body dualism, whereby music meant for the body is deemed "unintelligent."

Autechre consciously engage with this radical and deterritorialising movement between pulsed and non-pulsed time in their *Anti EP*. The EP was produced in response to Sections 63 to 66 of Great Britain's Criminal Justice Bill and Public Order Act 1994, Part V, "Powers in Relation to Raves":

> This section applies to a gathering on land in the open air of 100 or more persons (whether or not trespassers) at which amplified music is played during the night (with or without intermissions) and is such as, by reason of its loudness and duration and the time at which it is played, is likely to cause serious distress to the inhabitants of the locality; and for this purpose ... "music" includes sounds wholly or predominantly characterised by the emission of a succession of repetitive beats.[78]

Autechre's response was to emblazon the front cover of their *Anti EP* with the following statement:

> Warning. Lost and Djarum contain repetitive beats. We advise you not to play these tracks if the Criminal Justice bill [sic] becomes law. Flutter has been programmed in such a way that no bars contain identical beats and can therefore be played at both forty five and thirty three revolutions [sic] under the proposed new law. However we advise DJs to have a lawyer and a musicologist present at all times to confirm the non repetitive [sic] nature of the music in the event of police harassment.[79]

[78] Great Britain. Parliament. *Criminal Justice and Public Order Act 1994*. London: HMSO, 1994.
[79] Autechre. *Anti EP*. Warp, 1994.

In this warning, Autechre cynically allude to the subversive and deterritorialising possibilities brought about by repetitive musical structures.[80] However, the level at which they describe musical repetition does not rely upon a distinction between metrical and non-metrical structures. This is true of each of the three tracks on the Anti EP, including the track "Flutter," which they claim to be free of repetitive beats. In fact, this track is characterised by strong and highly metrical rhythmic structure, clearly indicated by the main melodic synthesiser part (four bars in 4/4 time). The lack of "identical beats" seems to occur at the rhythmic level of the "bar" in the drum programming, despite the fact that this part also relies upon repetitive rhythmic cells. However, Autechre use intense syncopation and digital delay in the drum part to create a free-floating temporal sensation, creating a "disorganised" non-pulsed time from an "organised" pulsed time. With rhythmic programming pushing at the imposed metrical limits, we are thus presented with a novel, deterritorialised image of temporality.

In their track "Gantz Graf," and the accompanying music video by director Alexander Rutterford, Autechre present another brilliant display of temporal mutation that relies upon quantised, metrical, repetitive structures. This example demonstrates particularly well the use of a "mad" approach to meter, resulting in a translation, or metallisation, between images of time. Repetitive metric structures underpin most of this work, both in the aural and visual domains, although once again displaying the intense syncopation characteristic of IDM. In addition, the correlations between the programmed sounds and visual animation form another type of repetition, whereby the abstract spatial extensions (in the form of CGI polygons) repeat specific aural textures and rhythms, and displacements of camera angle repeat the metric subdivisions found in the aural domain.[81] Yet despite these clear levels of repetition in

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[80] On the dance party or "rave" with reference to Deleuze and Guattari, see Fitzgerald 69-74, and Tim Jordan, "Collective Bodies: Raving and the Politics of Gilles Deleuze and Felix Guattari," *Body and Society* 1.1 (1995): 141.

[81] With regard to the abstract space created in the video, David Stubbs has noted that it "would have almost certainly have made Wassily Kandinsky's head explode with rapture had he ever been able to see it." David Stubbs, "The Futurologists," *The Wire: Adventures in Modern Music* April 2003.

"Gantz Graf," we can still appreciate an acute engagement with complex repetition and free-floating time. This occurs through the disruptive affect of a constant "pushing" at the metrical limits (such as tempo and rhythmic subdivision). Through this exploration at the limits of technological and musical organisation, the quantitative, mensurable and molar metrical repetition is smelted down, a molecular fusion and melting of elements ensues; a translation occurs between pulsed and non-pulsed time. From a raw and pulsed temporal ore, comes a fused and impure temporal alloy.

During the seminar in which Pinhas confronted Deleuze with the concept of metallisation, Deleuze proceeded to subsume it within his understanding of territoriality: he believed that to wrest non-pulsed time from pulsed time requires a deterritorialisation on the part of the artist. Pulsed time is the territory that we are given, the refrain or ritornello, and to create the new, to open music towards cosmic forces, musicians must deterritorialise pulsed time, engaging in temporal becoming. In addition to this understanding of metallisation, incorporated within the common lexicon of Deleuzian concepts, I believe there is also room for the notion of a metallic synthesis of time to function as a different line of flight, exploring further the notion that metric repetition can create novel or subversive images of temporality, through a critical and intense engagement at the limits of its own metrical structures and sequences. This is a situation that is played out across a broad spectrum of contemporary music making practices. And, in our engagement with metric repetition in popular music, we can seek out these limits, where aspects of rhythmic repetition in music challenge, rather than reinforce, our understandings of time.

Summary

Deleuze's (and Bergson's) understanding of time – as traditionally misconstrued via spatial metaphors – is profound in its implications for the formation of knowledge. Boundas,

paraphrasing Deleuze, even sees that "our exclusive preoccupation with space at the expense of time, with things at the expense of processes . . ." ultimately privileges " . . . sedimented culture at the expense of learning."[82] In this way, our image of time is intimately linked with our image of thought. Looking at cinema with this connection in mind, Deleuze finds a revelation of movement and time, rather than a mere analysis of discrete images and inter-relations between them. He recognises the essential products of cinema, which are movement and time, where movement comes from time, rather than time from movement. In music as well – through exploring the concept of the refrain and the deterritorialisation which effects temporality – Deleuze and Guattari present an understanding that resists the misconstruing of duration through malformed spatial metaphors. Instead, temporality becomes not only integral to music, but music becomes integral to the formation and interpretation of time. Certain electronic music, through altering the time of recorded sound, demonstrates how the deterritorialising of the refrain can fabricate new temporalities, new images of time. This means music can act like an instrument of time, or a time machine. What is important for this time machine is that music affects the interpretation or machining of time, as much as time influences knowledge about music.

[82] Boundas 85.

Chapter Three
MUSIC AND MACHINE

Many aspects of Deleuze's approach to thought and time have profound implications for our understanding of modern technology. In particular, Deleuze challenges us to connect our images of thought and time with the "inhuman" world, pointing out the immanent connections between technology and human subjectivity. For example, if thought is seen as an immanent part of life, then it should be able to engage with all of the connections that result from life, not only those that have been ordered by human perception. And if cinematic and musical machines can make perceptible aspects of time that would otherwise remain imperceptible, then there is clearly a significant connection between "inhuman mechanisms" and "human subjectivity." This chapter explores these issues with specific reference to the notion of human "identity" and the "subject." My exploration takes place within the context of the preceding chapters, whereby a number of new Deleuzian concepts are introduced, including becoming-other, desiring machines and assemblages, and the body without organs. Following this, I look at the concepts of the cyborg and the posthuman voice in popular music, and identify what we might call a Deleuzian critique of how we "read" music. Throughout each of these issues, the problem that Deleuze presents us with is: How do our connections with the inhuman engender new forms of subjectivity? That is, how do they allow us to *become* in different ways?

Becoming

Western philosophy, following Platonic tradition, has been concerned with an ontology that takes some unknowable "outside" as the starting point for understanding. That is, it begins with the belief that our experience of the world is a perception of some real thing, or Form, of which our perception is merely a copy or reflection. While our perception is considered a more-or-less reliable representation of this external, or "outside" as Deleuze would say, it is

nonetheless still a copy, in that it can never be as "real" as its origin. From this basis, we have a tendency to think of the world as existing in a stable state of *being*, which then undergoes a *becoming* through our perceptions. The resultant hierarchy of perception privileges being; becoming is considered a mere copy of the real world that exists behind our perceptions. This image of the world is one of the most pervasive illusions of transcendence, underpinning many common beliefs in universal and absolute concepts such as Truth and God.

Deleuze pursued an inversion and abolishment of this Platonic outlook, denying the opposition between being and becoming, and asserting a very different concept of human subjectivity.[1] He stressed that all life is a continual process of flux and differentiation, and that there is no stable "real world" that exists behind our perceptions. For Deleuze, life is a constant flow of becoming, in which "beings" can be thought of as more-or-less stable moments within this flux of perceptions. Our mistake is to imagine that beings are a part of some "autonomous reality" around which subjects are then formed. Instead, we should realise that life is a constant flow of becoming, and we create more-or-less stable beings out of this flow.

The issue with making being prior to and prevailing over becoming is that we tend to establish the human subject as the basis upon which we become aware of the world. Prevalent not only since the "death of God" in philosophy, this primacy of human subjectivity also underpins most Western philosophical thought since Descartes: both humanism and subjectivism posit an ultimate ground for life, either the human who apprehends the world, or the subject that grounds experience. For example, we usually divide continuous flows of experience into extended objects according to a specific point of view. This point of view orders our perception according to a certain perspective, grounding it within a predetermined

[1] Deleuze wrote that "the task of modern philosophy has been defined: to overturn [*renverser*] Platonism," where *renverser* implies both an overturning and a reversal. Gilles Deleuze, *Difference and Repetition*, trans. Paul Patton (London: Athlone Press, 1994) 59.

framework, such as a preconceived notion of the power of thought, or an image of time as spatial, extended and absolute.

However, this understanding introduces yet another deferral to an ultimate ground, a plane of transcendence through the image of a "subject." Instead, Deleuze encourages us to see the human subject as just one effect of the multiplicity of experience. In place of the ordered perception of a unitary person, Deleuze is more interested in thinking about the multiplicity of experiences that pre-exist our formation of distinct persons and "subject positions." This means re-examining all of the aspects of experience, including those that tend to be overlooked when we construct and classify particular individuals. Such an approach means that Deleuze is able to sidestep the question of identity politics in a constructive way.[2] He does not seek to explore the ready-made categories of "identity," "culture" or "society," and how these categories work to manipulate human subjectivity: approaching such categories in this way reflects a dogmatic image of thought, and the model of subjectivity that is prevalent in much cultural studies.[3] Deleuze would rather insist that we focus on the differential becomings that gives rise to such distinctions: the complex flow of experience from which we produce the idea of personal identity and similarity.[4] In attempting to think this flow of experience, the concepts of *desire* and *machine* are particularly important to Deleuze. Both of these terms undergo radical redefinition in their transformation from everyday language into Deleuzian concepts.

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[2] Ian Buchanan, Introduction, *A Deleuzian Century?*, ed. Ian Buchanan (Durham: Duke University Press, 1999) 5-6.

[3] See Ian Buchanan, "Deleuze and Cultural Studies," *A Deleuzian Century?*, ed. Ian Buchanan (Durham: Duke University Press, 1999) 103-17.

[4] For an account of Deleuze and Guattari's understanding of subjectivity, presented alongside Luce Irigaray's feminist understanding, see Tamsin E. Lorraine, *Irigaray & Deleuze: Experiments in Visceral Philosophy* (Ithaca: Cornell University Press, 1999) 110-217. In this work, Lorraine situates both Deleuze and Irigaray within a paradigm of "conceptual" and "corporeal logics."

Desiring machines

Our everyday understanding of the machine is linked to our everyday understanding of the self-contained human subject. Both human and machine are considered highly organised, although in very different ways: the subject through its autonomous perception and apprehension of life, and the machine as a logical mechanism for achieving a specific purpose or end. In the history of philosophy this image of the machine has resulted in the subjugation of the "simple machine" to the "self-directed" and "all-knowing" subject.[5] However, Deleuze and Guattari use the term machine in a very different, and more positive, sense. While an *organism* is an ontological whole, and a *mechanism* is a closed machine with a defined function, a *machine* is only defined by the connections that it makes.[6] In this sense, the world consists of proliferation of *machinic* connections. This definition of the machine is not metaphorical: if it were, then we would simply be reverting to a representational mode of understanding, whereby we apply the word "machine" to describe a real world beyond our perceptions.[7] Instead, Deleuze and Guattari insist that life is actually a machine: all of life is made up of multiple machinic connections from which we form our image of the world. Rather than simply observing life from the viewpoint of the human mind, we actually form an image of the human mind from the flux of machinic connections.

Deleuze also undertakes a radical redefinition of desire. In our everyday understanding, we tend to think of desire as directed towards something that we lack. For example, I can only desire that which I do not have, and that which I wish to possess; consequently our usual understanding implies that desire is something that can be resolved through satisfaction. In this model, desire describes an exterior relationship between two terms: the *subject* and the *object* of desire. This image of desire underpins how Freudian psychoanalysis conceives of

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[5] On the notion of the machine in the history of philosophy, see Alistair Welchman, "Machinic Thinking," *Deleuze and Philosophy: The Difference Engineer*, ed. Keith Ansell-Pearson (London: Routledge, 1997) 211-29.
[6] See Claire Colebrook, *Gilles Deleuze* (London: Routledge, 2002) 55-61.
[7] On metaphor, see Gilles Deleuze and Félix Guattari, *Kafka: Toward a Minor Literature*, trans. Dana Polan (Minneapolis: University of Minnesota Press, 1986) 70.

desire, whereby we gain subjectivity only through our differentiation from an original blissful state. That is, in our maternal satiation as child at the breast, we lack all desire, and lack a differentiated subjectivity. A psychoanalytic approach then posits our ongoing desire for this original state as the defining characteristic of differentiated human persons, the trace of which is present in a "death drive," which would represent the return to an undifferentiated desire-less state. Desire functions in a similar manner when it comes to Freud's identification of the Oedipus complex. In the familial triangle of child, mother and father, it is only through repressing the "natural desire" for our mother – and though identification with our father – that we become subjects, and members of culture: as such, the prohibition of incest results in an image of desire as that which was first directed towards the mother.

This is essentially a "negative" image of desire, both in the sense that it relies upon a negation and lack, and the fact that desire is rendered in a considerably pessimistic light. In *Anti-Oedipus*, Deleuze and Guattari approach desire in a thoroughly more optimistic manner, an approach that is linked to Deleuze's affirmation of the positive power of difference.[8] For them, reducing desire to a relation between a subject and an object, or to a familial condition, ignores the fact that desire is a part of life's flow of difference. In their view, Western history has interpreted desire as "unreal," in the same way that a fantasy, or a mere representation, is an unreal imitation. In place of this image of desire, Deleuze and Guattari propose that there are not desiring subjects that exist above a lifeless and static "real" world. Desire is not a relation between terms based on lack, but rather desire is evidence of life's constant and differential *production*. There is a plane of desire and flows of experience, and this desire produces subjects. We tend to see desire as grounded in a specific, "desiring subject." In contrast, Deleuze would say that the positive production of desire anticipates our formation of the subject, and hence opens out onto the inhuman world. If the tendency of life towards a

[8] Gilles Deleuze and Félix Guattari, *Anti-Oedipus: Capitalism and Schizophrenia*, trans. Robert Hurley, Mark Seem and Helen R. Lane (Minneapolis: University of Minnesota Press, 1983) 1-8.

connection of flows is evidence of a productive desire, then desire itself need not be subsumed within a universal image of human subjectivity.

Productive desire corresponds to the ability of life to become, and to the difference inherent in the flows of experience. As such, desire becomes a revolutionary or deterritorialising force; for example, it breaks down the closed definition of the subject, opening it out onto a great field or plane of connections, or a "coupling" of different machines. Deleuze and Guattari describe the coupling of different machines or flows as *desiring machines*, where their understanding of desire as production is significant: "Desire constantly couples continuous flows and partial objects that are by nature fragmentary and fragmented. Desire causes the current to flow, itself flows in turn, and breaks the flows."[9] Consequently, organisms are formed through desiring machines, which connect various elements of flow, where each desiring machine is connected to others: that is, no one desiring-machine can describe an organism's complete being. To this end, Deleuze and Guattari introduce the term *assemblage*, reinforcing the fact that beings exist in life, before we order them into distinct and unitary wholes.[10] Rather than describing unitary and distinct organisms or mechanisms, we can see how machinic connections produce dynamic assemblages, such as the "open-ended" human body. This is played out in a number of contemporary scenarios regarding prosthetic technology between the human body and an artificial limb: the human body and the limb become a machinic assemblage through the connections that are made possible. Therefore, in place of concepts such as "subject position" and "identity politics," Deleuze and Guattari posit a new vocabulary of the subject that introduces desiring machines, and assemblages, to describe the ways that subjects are formed and deformed, territorialised and deterritorialised. As Tamsin Lorraine writes: "Unlike identity politics, which requires one to determine the specific features of one's molar identity, Deleuze and Guattari's

[9] Deleuze and Guattari, *Anti-Oedipus* 5.
[10] Gilles Deleuze and Félix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia* (Minneapolis: University of Minnesota Press, 1987).

micropolitics unfolds with the spontaneous flow of an individual or group entering into an assemblage created in keeping with immanent principles of desire."[11] One of the key ways that such assemblages are formed and deformed is through the practice of *becoming-other*.

Becoming-other

To become other than ourselves is to enter into the flow of experience prior to the ordering of human perception; it sets in motion an ambiguous engagement with the multiple differential flows of life. Deleuze and Guattari describe a number of forms of becoming-other, such as *becoming-animal*, *becoming-woman* and *becoming-imperceptible.*[12] For example, when it comes to thinking about animal (and plant) life, our common mistake is to imagine that we can classify a genus, and then species within this genus, from which we can differentiate individual organisms, such as plants, or animals, or human subjects. The problem with this concept is that we see difference as being based on similarity, rather than seeing similarity as something that we construct out of the pure difference and becoming of life. Rather, we might say that there is an initial flow of productive desire and difference from which identity emerges. If we set becoming in motion, such that we engage with this pre-personal desire, then we escape the ordering and grounding of life through human perception.

To *become-dog,* for example, does not mean simply imitating a dog, because to do so would merely reinforce our difference, or our "humanity," in contrast to the dog's "inhumanity." If we truly become-dog, then we actually break apart our solidified subjectivity, and engage with the elements and particles that form both distinct "dogs" and "human" subjects. Deleuze and Guatarri use the terms *molar* and *molecular* to describe these elements or particles: when aspects of experience are solidified into discrete subjects and objects, then we can say that they are molar; when aspects of experience are free flowing and

[11] Lorraine 187.
[12] Deleuze and Guattari, *A Thousand Plateaus* 232-309.

capable of multiple connections in different desiring machines, then we can say that they are molecular. In this way, becoming-dog entails a molecular rearrangement that requires both a becoming-dog of the human, and a becoming-human of the dog.[13] In Messiaen's musical use of birdsong, Deleuze and Guattari find a specific instance of this engagement with molecular flows, in which there is a becoming-bird of music, alongside a becoming-music of the bird. Such a becoming of both "bird" and "music" demonstrates a deterritorialisation of our usual organization of perception and experience, formed from molecular flows and machinic assemblages.

In a sense, becoming-other involves moving through innumerable processes, all of which deterritorialise, or "open out" our image of a grounded stable image of humanity. For much of Western history, this image of humanity has been grounded on the "man" standard. To emphasis their move away from any such standards, or planes of transcendence, Deleuze and Guattari state that each of these becomings must pass initially thought a *becoming-woman.*[14] They believe that there is no "becoming-man," because man is the stabilisation of continuous flows: that is, the image of man results from an ontology of being, and the codification of experience into distinct and autonomous thinking subjects and extended objects. Becoming-woman has a privileged relationship to all processes of becoming-other, because it breaks down the molar forms of subjectivity that result in the usual formations of distinct subjects and objects: it is thus something that both men as "majority" and women as "minority" need to undertake. Deleuze and Guattari describe *majoritarian* and *minoritarian* social groups in terms of their "mode of formation," rather than the number of members in a group. The idea of "man" is majoritarian because it posits a standard of "man," against which members of

[13] For a lucid explanation of this aspect of Deleuze and Guattari's work, see Lorraine 181-7.

[14] Initially, some feminist scholars received the concept of becoming-woman quite critically, in that it appears to ignore or even appropriate sexual difference. Many recent critiques have viewed Deleuze and Guattari's work rather more positively. Some of the most useful and critical accounts of Deleuze's influence on feminist scholarship can be found in Ian Buchanan and Claire Colebrook, eds., *Deleuze and Feminist Theory* (Edinburgh: Edinburgh University Press, 2000).

humanity are judged (as man, woman, or inhuman, for example). The notion of a feminist movement is minoritarian because it does not posit a standard, but rather constantly questions the changing identity of the group: that is, feminism is able to *become-minor* through constantly questioning the notion of "woman."

Deleuze and Guattari are concerned with how we tend to divide the world into simple human identities and subjectivities, and also the fact that perception orders the world, including the inanimate world, in terms of fixed and extended objects. The ordering of experience through human perception is what gives rise to an image of a static world of being, which we receive and represent through representation. This image of perception relies upon a particular notion of the "real," which is defined by a relationship between the *actual* and the *possible*. We tend to see that there is an actual or "real" world, which determines the conditions of what we perceive as possible. That is, what could "possibly" happen is not fully real, but *virtual;* it is based on imagining what could occur. Deleuze does away with this dualism between the actual and virtual, insisting that the actual and the virtual are both fully real. Rather than thinking of life as some *thing* (being, or the actual) that we can only ever represent in a second-hand manner (through becoming, or the virtual), Deleuze contends that life is just this actual-virtual movement. Life is a movement from the virtual, intense germinal influx of experience, to the actualisation of fixed bodies, objects and subjects.[15] In other words, life is not defined by the real conditions of possibility, but rather by a creative flow of virtual *potential,* or *virtual difference*. It is through engaging with this virtual difference that we may *become-imperceptible*. The usual ways of ordering experience rely upon the ground of human perception, which contracts the virtual flow of difference into distinct subjects and objects. This process of perception is what makes us, as subjects, *perceptible.* If we enhance those forces of life that pre-exist our contraction into distinct subject positions, then we

[15] Deleuze and Guattari, *Anti-Oedipus* 162.

essentially avoid the processes of perception that make us "perceptible": we become-imperceptible by opening out our fixed and organised selves toward the virtual differences and intensities of life.

Body without organs

Rather than thinking about individuals and identities, or "beings," becoming-other has distinct ramifications for how we think about the body as a differentiated and organised whole. The image of an unstable human body is exemplified in many recent artistic creations: for example, referring to images of subjectivity in recent film (and alluding to *Blade Runner* and *Star Trek,* amongst other films), Garrett Stewart notes that whether "Duped or mutated, ejected or projected, vaporized or remade, cloned, morphed, sloughed off, beamed up or otherwise digitally repossessed, the body as host of consciousness becomes . . . more like a phantom, a vestige, or at best a leaky vessel.[16] That is, the human body can no longer be considered the "oldfashioned human body in its biological integrity and ontological stability."[17]

Deleuze and Guattari expand their notion of the human body by making a distinction between the *body-as-organism*, and what they call the *body without organs*.[18] The formation of the organism, as they see it, is a direct result of how society and social systems impose ontological stability, or being, upon a body. Deleuze and Guattari see the organism as an *organ-ising* of the body, which includes an organisation of space and time, as well as races, cultures, religions, and genders. In contrast, the body without organs is the undifferentiated

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[16] Garrett Stewart, "Body Snatching: Science Fiction's Photographic Trace," *Alien Zone 2: The Spaces of Science-Fiction Cinema*, ed. Annette Kuhn (London: Verso, 1999) 226-7.
[17] Stewart 228.
[18] Deleuze and Guattari borrow the term "body without organs" from Antonin Artaud. See Deleuze and Guattari, *Anti-Oedipus* 9-16. It is abbreviated to "BwO" in *A Thousand Plateaus*. For further useful discussion of this concept, see Lorraine 118-21, and Brian Massumi, *A User's Guide to Capitalism and Schizophrenia: Deviations from Deleuze and Guattari* (Cambridge, Mass.: MIT Press, 1992) 70-1. On music and the body without organs, see Christian Asplund, "A Body without Organs: Three Approaches - Cage, Bach, and Messiaen," *Perspectives of New Music* 35.2 (1997): 171-87.

flow of connections from which our differentiation of bodies emerges. It is the underlying potential of multiple connections that exist in the making of bodies that nevertheless enables us to see beyond the human. In other words, the body without organs is the flow that we see as existing prior to our formation of individual bodies. This is something that changes historically: in ancient civilisations the body without organs is tied to the life-giving power of the earth, which produces organised bodies and social order; in modern society, it is tied to the belief in the basis of capital, or an original system of exchange, from which we manage human identities and societies. In *A Thousand Plateaus,* Deleuze and Guattari insist that we need to become a body without organs.[19] When we do so, we can think outside the organised human body, to comprehend new types of thinking, temporality, and forms of "identity."

Two aspects of this concept are most relevant for understanding Deleuze's challenge to the transcendence of the human subject. Firstly, the body without organs is always in a block of becoming, and a mode of deterritorialisation, that destabilises our image of an enclosed and autonomous human body, or *being.* It does away with hierarchical oppositions such as the oppositions of subject/object, or human/machine, involving different types of becoming-other, such as becoming-animal, or becoming-child. Secondly, by becoming a body without organs, we can escape various dogmatic images of thought, and temporal pre-determination, thus avoiding dialectics such as God's time/Man's time, as well as avoiding Newtonian concepts of eternal, linear and spatialised time. According to Deleuze's thinking, through a mutual engagement with the inhuman and the inorganic, we may encounter very different types of thought, different apprehensions of space and time, and different ways of thinking about the "subject."

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[19] Deleuze and Guattari *A Thousand Plateaus.*

Cyborg

Changing ideas of the "subject" in the contemporary era have been echoed in a number of major changes for the human body. For example, we are now conditioned to rely on various types of technology that alter our experience of the world. Many people rely upon some kind of "technological prostheses" in various aspects of everyday life: from telecommunications, to the Internet, email and wireless communication, the experience of our technologically augmented bodies has brought about a shift in how we perceive of thought, space and time. The shift from real-time and real-space to a sense of virtual spacetime is a change that "is ultimately felt in the very body of every city dweller", and it creates bodies which are intimately constituted by novel interactions with the flows and machinic connections of experience.[20]

Deleuze and Guattari emphasise the connections that occur between our bodies, and what would earlier have been thought of as our "others": for example, animals or machines, organic or inorganic part of life. This concept resonates with the image of the "cyborg," or "cybernetic organism," most famously expressed as a liberating technological image by Donna Haraway, in her "Manifesto for Cyborgs." In this work, Haraway describes the human body as a "chimera, a hybrid of machine and organism," and the cyborg, as Haraway writes, is not only a creature of fiction, but also "a creature of social reality."[21] We can observe not only fictional cyborgs, such as the *Terminator* and *Robocop,* but also everyday cyborgs: firstly, those who sport artificial limbs, bionic ears, cochlear implants, orthodontics, hip replacements, pacemakers, reconstructive surgery, breast implants, collagen injections,[22] and also the machinic connections that we are all accustomed to making, such as "jacking in" to

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[20] Paul Virilio, "The Third Interval: A Critical Transition," *Rethinking Technologies*, ed. Verena Andermatt Conley (University of Minnesota Press, 1993) 3-12.
[21] Donna Jeanne Haraway, "A Manifesto for Cyborgs: Science, Technology, and Socialist Feminism in the 1980s," *The Gendered Cyborg*, ed. Gill Kirkup (London: Routledge, 2000) 50.
[22] N. Katherine Hayles, *How We Became Posthuman: Virtual Bodies in Cybernetics, Literature, and Informatics* (Chicago: University of Chicago Press, 1999) 115.

computer terminals, Playstations, and mobile phones. The musical machines of today function in similarly cyborgian ways: specifically, they present variant forms of interface, connection and transgression between human and machine. Thinking about these machinic connections in contemporary electronic dance music, Susana Loza writes of such cyborgs as "techno-organic entities [that] traverse the space between desire and dread; their indeterminate forms simultaneously destabilize and reconfigure the dualistic limits of liberal humanist subjectivity."[23] As such, the Western tradition of separating "human" and "machine," "mind" and "body" is broken down: in Deleuzian terms, the philosophical dualism of subjectivity is deterritorialised into molecular flows of differential becoming. This is an image of subjectivity that can be described as a becoming-other, a way of becoming a body without organs, what we might also refer to as a cyborg. All of these images of human bodies and subjects can be thought of as examples of what could be called "posthumanism."

Posthuman voices

While we can identify an antihumanism in Deleuze's philosophical project, some scholars have also characterised similar ideas as evidence of a "posthumanism": specifically, posthumanism engages with those understandings of identity and subjectivity at the borders or boundaries of solidified bodies, race and gender.[24] In particular, recent forms of music can be seen to play with these types of boundaries, presenting new images of thought, time and subjectivity.[25] For example, music that engages with elements outside of representation, such as music accidents, encourages us to think beyond our usual notions of the power of thought, based on homogenisation according to a human thinker, or subject.[26] And music that engages with temporality in new ways, deterritorialising our images of time and presenting new

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[23] Susana Loza, "Sampling (Hetero)Sexuality: Diva-Ness and Discipline in Electronic Dance Music," *Popular Music* 20 (2001): 349.
[24] See Judith Halberstam and Ira Livingston, eds., *Posthuman Bodies* (Bloomington: Indiana University Press, 1995) 1-19.
[25] See Alexander G. Weheliye, "'Feenin': Posthuman Voices in Contemporary Black Popular Music," *Social Text* 71 (2002): 21-47.
[26] See Chapter 1, "Music and Thought" 10-18.

temporal understandings, also challenge the boundaries that we create regarding the structure and effect of time. Similarly, with the invention of recorded sound, genuinely new understandings of music are engineered that engage with the boundaries between distinct, unified human subjects and their "others."

Far from merely representing sound as a reflection of past sonic events, or an unproblematic reproduction of musical performances, recorded sound may in fact allow a profound alteration of our perception. As Alan Williams notes in his article "Is Sound Recording Like A Language?": "In sound recording . . . the apparatus performs a significant perceptual work *for us* – isolating, intensifying, *analyzing* sonic and visual material. . . . More than that: *we accept the machine as organism, and its "attitudes" as our own.*"[27] Williams' identifies here the power of recorded sound to affect our usual distinction between organisms and machines, between the organic and inorganic. This becomes especially apparent, for example, when listening to a recording of the human voice on a vinyl or acetate disc. As the record spins at 33 1/3 or 45 RPM, utilising a mechanical device to do so, it produces what we take to be a human voice. But what we must always remember is that a machine mediates the sound; it performs upon the original spacetime of the sound event. At this point we accept the machine as an organism, creating a cyborg: while it contains the trace of the singer's body, and their spacetime at that particular moment, it is now, in effect, cyborgised: the *disembodied* voice and the machine have coalesced. Feminist theorist Kaja Silverman, in her work on film, sees such a disembodiment as giving the female voice an extreme power, because it subverts the patriarchal need to locate the female voice within a specific body, whereby it would render itself less disconcerting. So too with recorded sound does it seem that the very disengagement of *sound* from *sounding-body* gives the voice a uncommon and

[27] Alan Williams quoted in Kaja Silverman, *The Acoustic Mirror: The Female Voice in Psychoanalysis and Cinema* (Bloomington: Indiana University Press, 1988) 43.

somewhat novel power: it provides us with a time machine, giving up access to a sonic event and sounding body from a space and a time which might otherwise be unavailable to us.

However, simply playing back recorded sound does not provide direct access to the *manipulation* of time. It is like a window through which we see the past, but are unable in any way to change or alter it. In this sense, it still rests on Newtonian assumptions of eternity and linearity, and the idea that time and temporal flow is unstoppable. In this model, we can only listen to music as a representation of a time and space that has "been and gone." At the point where an accident, such as the "scratch," is introduced, the nature of the medium has changed, and the recording no longer act as a form of representation.[28] The use of "scratching" by the DJ or "turntablist" is a starting point for the creation of a new machinic assemblage, which allows for the manipulation of thought, time, and our subjective interaction with these elements. [29] It allows us to repeat, replay, to recognise and to reconfigure the time of music in unique ways, including altering aspects of experience and perception that we do not necessarily "occupy" or "perceive" in the usual ways. That is, we can engage with aspects of time that we might not otherwise approach, including aspects of time and space that do not reinforce the distinct and molar formations of our bodies and subjectivities. We may do so through the new machinic connections that are formed through these means.

The digital sampler can also give rise to such deviant and deterritorialised temporal understandings. Digitisation of recorded audio allows time operations to be performed that stretch and explode time. Pitch, time and even formant (or timbre) can be altered dramatically and independently. These technological manipulations of the human voice (for example) result in cyborg voices that engender new temporal experiences. The next generation of digital samplers are very literally time machines: they come with a big knob labelled, simply,

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[28] See Chapter 1, "Music and Thought" 24-26.
[29] See Chapter 2, "Music and Time" 47-49.

"Time." Also included are totally independent controls for pitch and timbre (or "formant"). So at the turn of a knob high voices become low, slow voices become fast, a woman's voice can be seamlessly morphed into that of a drag queen. Vinyl's stratification of pitch, time and timbre is exploded: no longer does recorded audio get lower in pitch when it is slowed down, or higher in pitch when it is sped up.

Another example of the organic voice becoming cybernetic is the now very popular digital technique of "auto-tuning". Software such as Antares' Auto-tune and Waves Mechanics' Pitch Doctor software do exactly as their name implies: in real time they automatically tune recorded audio to fit a prescribed key, or to follow designated pitches. Where this technology was originally intended to subtly and imperceptibly correct problems with the tuning of recorded audio (often poor performances by pop singers), it is now very often deliberately abused, creating previously unimaginable electronic voiceboxes. Just as the gramophone was transformed by an accident – the invention of the scratch – so too is this digital technology transformed, accidentally engineering a new type of cyborg. The track that defined the sonic affect of Auto-tune technology was certainly Cher's "Believe." This sound is characterised by the now-familiar transformation of subtle vocal idiosyncrasies, such as glissandos, into discrete pitches.[30] What makes this particular track particularly novel – aside from the fact that it was perhaps the first mainstream, Top 40 instance of this sound – is that Cher's cybernetically doctored voice is well complemented by her surgically doctored physical

[30] See Kay Dickinson, "'Believe'? Vocoders, Digitalised Female Identity and Camp," *Popular Music* 20 (2001): 333-47. The pitch-altering effect used on Cher's voice in this track is usually attributed to a Digitech Talker guitar effects pedal, which is, in fact, most like a vocoder. The pitch-altering sound itself, however, has come to be synonymous with Auto-tune. Dickinson ascribes this effect to the vocoder in referring to a number of recent charting songs, even though in many (if not most) cases the sound is actually created with Auto-tune soft- or hardware (especially with regard to songs in the UK Garage and 2-Step genres). The key difference here is that Auto-tune essentially alters pitch and pitch contours, this being the signature of the "Believe" sound, whereas the vocoder alters both pitch elements and (more significantly) *timbre*, most often creating the "robot effect" discussed below.

appearance. As Kathy Davis writes, she is, after all, "The undisputed queen of cosmetic surgery" – a real cyborg.[31]

Other examples of this posthuman vocalisation can be found in the "happy hardcore" style of electronic dance music, and the related style of "kiddy-core." Both types of music make use of the ability to manipulate the recorded human voice in an extreme sense by creating vocal performances that blur the lines between solidified human subjects. Producers' of this music engage in extreme digital manipulation the recorded human voice, creating high-register vocal parts (which can be heard as "child-like" voices) over dramatic electronic beats at high tempos (generally 140 BPM and above).[32] Just as the vocoder creates a desiring machine of "human" and "mechanism," so do these musics use technology to deterritorialise and cut a diagonal, or open a line of flight, creating different forms of becoming. The use of sped-up, child-like or "chipmunked" voices indicates a traversal of the pitch/duration stratification, a use of a technological accident to engage with aspects of formative subjectivity and the flow of becoming.

Reading texts

In the study of art and literature, we tend to proceed with a "reading" or "interpretation" of technology within its social context. For example, we might think of the "cyborg" as a representation of technology and its impact upon society, whereby the image of the cyborg is constructed as society's response to the encroach of machines upon the human body. As such, changes in technology are interpreted as reflecting changes in society; similarly, changes in music technology also reflect changes in society and culture. In this model, the distinct "human subject" remains largely intact, and "society" is also put forward as an overriding ground, or an origin for our understanding. The creation of meaning thus relies upon

[31] Mary F. Rogers, *Barbie Culture* (London: Sage, 1999) 121.
[32] For a taxonomy of these effects, see Loza 349-50.

establishing yet another plane of transcendence, and reducing every affect to the status of a signifier of some original ground, or stable state of being. Such an approach is often exemplified in the analysis of science fiction literature and movies (such as the Star Wars epic), in which we tend to see a vision of the future that reflects (and espouses) a Western, white, patriarchal and capitalist ideology, despite its surface exploration of futuristic organisms and technologies. Another example can be seen in certain interpretations of the cyborg: we might, for example, interpret Cher's plastic body and electronic voice as a reflection of the "*normative discontent* with their bodies that plagues females in postindustrial societies."[33] In both of these examples, we have "read" a text based on the revelation of some concealed, ideal meaning. Deleuze and Guattari describe this way of thinking as a symptom of a Western disease that they term *interpretosis*. Interpretosis is common to most of the ways that we go about "reading texts," and how we define and discover meaning according to fundamental and representational paradigms. One of its most pervasive manifestations is in psychoanalysis, where human desire is interpreted as indicative of one original ground: the human psyche, or "conscience" (which often plays out the Oedipal drama).[34]

Deleuze's approach to art and literature was very different to this: he saw that the power of art lies in the expression of singular affects and the immanent desirability of these affects. For Deleuze, images and affects do not simply reinforce commonsense assumptions regarding the importance of nature, society, culture, or human subjectivity. Rather, they allow us to make connections with other forms of perception and becoming, linking us to the immanent flow of desire. For example, in Franz Kafka, Deleuze and Guattari identified what they called a *minor literature*, or the minoritarian use of language. This type of literature denies the everyday, majoritarian understanding of language as based on representation.[35] For Deleuze, engaging with a text should not imply a practice of "interpretation" or "explanation" with regard to the

[33] Rogers 120.
[34] Deleuze and Guattari, *Anti-Oedipus* 154-66.
[35] See Deleuze and Guattari, *Kafka* 16-27.

text's "context," or its "place" within society and culture. The power of a minor literature, for example, lies in its ability to make us aware of the sounds, signs and singular *affects* from which systems of representation are formed. When Deleuze and Guattari read Kafka's work, they see it not as an expression of his social context or personal identity, but as a play of forces, and as the assemblage of many different becomings. That is, minor literature is not driven by a grounded molar identity, or "being"; rather, it expresses the flow of molecular elements, and a constantly differential becoming. Against Western interpretosis, Deleuze and Guattari describe this manner of "reading" as *schizoanalysis*, which is precisely the ability to think beyond the molar identities of psycholanaysis, and seek out the disjunctive, intensive molecular elements that we might think of as characteristic of schizophrenia.

This view regarding the interpretation of artistic texts was exemplified in Deleuze's approach to the work of Varese, Messiaen, and Boulez. Deleuze was not concerned with how Varese expressed the spirit of change in modern technological society, how Messiaen presented works that could be reduced and explained by his Catholic beliefs, or how Boulez expanded the techniques of serialism as a kind of musical revolt following the upheaval of World War II. Rather, he sought out and emphasised the particular ways that their music broke apart the majoritarian, molar assemblages of discrete and homogenised musical elements. Varese's exploration of sound and timbre beyond pitch and harmony, Messiaen's deterritorialisation of temporality, and Boulez's transversal of melodic-horizontal and harmonic-vertical correlations are examples of how music produces new affects and new ways of thinking. [36] These new affects and concepts do not necessarily conform to our ready-made ideas, and our reliance on particular "grounds" or planes of transcendence to moderate perception and experience.

[36] See Chapter 2, "Music and Time" 44-47.

Therefore, within a Deleuzian framework, the practice of reading or interpreting musical texts undergoes a profound alteration. In the study of music, we should not keep looking for the "meaning" of musical works in their relationship to musical structures or systems.[37] Initially, this may seem to imply an approach that conflicts with music theory. However, it is not only in the realm of traditional "Music Theory" that we tend to posit some ultimate "ground" or "site" of meaning; historical and cultural understandings of music also posit planes of transcendence, whether they be images of society, culture, or the human subject. And, approaching music from this basis means that we can only ask certain questions of music, such as "what is it?" or "what does it mean?" rather than "what can it do?" or "what new connections does it create?"

Deleuze turns towards the particular composers mentioned above, in an attempt to see how their music offers us new styles of affective thought. In these musicians he finds new creative ways of engaging with the immanent connections between art and life. We can adopt his broad approach to the study of music, in order to see how we tend to interpret music and its relationship to recording technology. Hence, we can create an alternative "Deleuzian approach" to "reading" musical texts. In particular, in the work of Daft Punk and Björk, the human body is deterritorialised in unique ways that challenge our molar understanding of the organisation of human bodies, introducing instead various types of becoming that deterritorialise the unitary human subject. Starting with the work of Daft Punk, their music presents opportunities to deterritorialise entrenched definitions of subjectivity, such as the opposition between humanity and technology.

[37] See Chapter 1, "Music and Thought" 28-29.

Daft Punk

Drawing on Chicago and Detroit house music styles, Daft Punk (producers Thomas Bangalter and Guy Manuel De Homem-Christo) are commonly described under the stylistic marker of "French house," alongside a number of other prominent groups including Cassius and Air.[38] Daft Punk's first album release was 1996's *Homework*, perhaps one of the first albums within the French House genre to cross over to an international audience. Their follow-up album from 2001, *Discovery*, continued the exploration of electronic house music, with an increasing emphasis on "robotic" vocal characteristics. This effect is most often achieved using a *vocoder,* which is essentially a technology originally designed to mask radio transmissions; vocoders have been used frequently by musicians, notably in 1970s funk styles. Essentially, the vocoder works by imposing the spectral, timbral, or "texture" envelopes of two sounds upon each other, which often means combining the voice with synthesised sounds to create the famous "robot voice effect."

As an example of how we tend to "read" significance in popular music, the track "Harder, Better, Faster, Stronger," by Daft Punk is particularly interesting: in it, they use vocoding technology to create a novel merger between human and machine.[39] The usual "commonsense" way to "read" or "interpret" this track (within the broad discipline of popular music studies) might be typified by the following hypothetical analysis:

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[38] See Ulf Poschardt, *DJ Culture*, trans. Shaun Whiteside (London: Quartet, 1998) 428-34. For further context, see Alexei Monroe, "Thinking About Mutation: Genres in 1990s Electronica," *Living through Pop*, ed. Andrew Blake (London: Routledge, 1999) 146-58. French house is generally based on American house music, and self-consciously fetishises the characteristics, techniques and technologies of 1970s funk and disco.

[39] There is a notable similarity between this title and the motto of the modern Olympics, *Citius, Altius, Fortius* (Faster, Higher, Stronger), and the Daft Punk track has been used in the International Olympic Committee's global promotional campaign for the Salt Lake City Olympic Winter Games. An irony here involves the use of a highly machined and robot-like voice accompanied by the IOC banner slogan "Celebrate Humanity". See International Olympic Committee, "Global Promotional Campaign Celebrates Olympic Values in Lead Up to 2002 Salt Lake Winter Games" 9 July 2001. http://www.moscow2001.olympic.org/en/session/communiques/archives13.html (10 December 2003). This also draws our attention the fact that athletes have become more and more like real cyborgs through various sports technologies, a point made by Haraway. It has also been reported that Daft Punk's track "One More Time" (which features a vocoder along with Auto-tune technology) was used without permission in the election campaign of French President Jacques Chirac, who ignored specific instructions that the band did not want the track to be used by either Presidential candidate. See Hayley Butler, "Daft Punk Struggle with Daft Politicians," *Chart Attack* 10 April 2002. http://www.chartattack.com/damn/2002/04/1003.cfm (10 December 2003).

> The cyborg begins his declaration with a chopped up manipulation of words that we only later recognise as forming meaning. The lyrics "More Than / Hour / Hour / Never/ Ever / After / Work is / Over" make little literal sense at first, although in retrospect their context is fully revealed as making up part of the phrase "More Than Ever Hour After / Hour Work Is Never Over". These lyrics reveal the possibility of a very specifically political understanding of this cyborg as a worker caught in a never-ending cycle of work, his bodily sense of time and space being controlled by his existence within the capitalist equation "time = money". The rest of the lyrics might seem to confirm this political reading, as well as implying a gendered identity: "Work It *Harder* / Make It *Better* / Do It *Faster* / Makes Us Stronger." Thus, the cyborg can be read as both a representation of labour, reduced to a value measurable in units of abstract time, as well as a portrayal of the ideological alignment between masculinity and technology, and a literally penetrating sexual politics.[40]

In my reading above, we can see how the lyrics are immediately situated within a system of representation, whereby the correlation between the sounding affect of the cyborg's voice and the meaning of its expression is considered unproblematic. However, in this reading, the reference to the lyrics prior to the "revelation" of meaning is quite significant. Before the lyrics reveal their power within the representational system of language, we are left to experience their affective and somewhat disorganised power, beyond any reduction to a "major" system of language. That is, what makes the cyborg singer of this Daft Punk track so intriguing is the astonishing novelty of its musical articulation (which crosses over the boundaries and performative idiosyncrasies of human voice, synthesiser and guitar), and its engagement with those aspects of our experience that deny a simple reduction to an ultimate

[40] Daft Punk. *Discovery*. Virgin, 2001.

ground for "knowing." This is reinforced in the "B" section of the track when, after the initial "revelation" of lyrical meaning, the voice proceeds to push the sonic boundaries between the human voice, the mechanical voice, the synthesiser and the guitar, blurring the discernibile lines between these elements. In this part of the track, it is precisely the engagement with molecular elements of subjectivity, prior to the discretion and organising force of human perception, that makes the track so novel, and enables it to present singularities of affect, rather than ordered molar experiences. Rather than a robotic "being," we can experience a cybernetic becoming-other.

Another key example of this Deleuzian approach to reading and subjectivity can be seen in a 2002 television commercial for Gap Jeans, featuring Daft Punk. A hypothetical reading might proceed as follows:

> In the clip, the two members of Daft Punk, adorned in elaborate "robotic hemets," are situated in a bare, tan-coloured "natural looking" backdrop, where they happily dance to robotic music (their single "Digital Love"), until in a moment of shock they recognise their human/female Other (actor Juliette Lewis). She proceeds to groove with them in a fluid, feminine manner; a style of movement that is contrasted strikingly against their previously static, mechanical movements. In the background, the cyborgs seem to mimic her for a moment, before returning to their synchronised dance, with Lewis now also joining in, or "adhering" to their programmed choreography. Finally we are presented with two highly contrasted images. Firstly, an image of Lewis framing herself with her hands, forming a frame within the frame of the filmic image: she is acknowledging that she is being framed, as it were, not only by the masculine cyborgs to either side of her, but also by the masculine technology of the cinematic apparatus itself. Secondly, the final image of the clip shows a headshot of the two cyborgs, now

professing their love for their other, reinforcing their determination within an Oedipal paradigm.

This reading of the commercial draws our attention to the strongly gendered determination of the cyborg: through the attachment of technology to masculinity, the cybernetic male constructs a space for its binary opposite, its other – the natural, womanly body. Directed by Paul Hunter – whose extensive work also includes music videos, such as the *Moulin Rouge* version of "Lady Marmalade", and Michael Jackson's "You Rock My World" – the commercial does indeed present a stark picture of technology and machinery as masculine, and the natural human body as feminine. The impact of the advertisement comes almost entirely from presenting this contrast in as stark a manner as possible. The image of gendered technology portrayed in the clip is of course extremely common: music technology often draws explicitly on such gendered terminology (for example, in the common description of plugs and sockets as "male" and "female").

However, despite the apparent reinforcing of these types of meaning in this example, we must be wary of reducing the affective image of the cyborg to a simple reflection of "dominant discourses" and "ideological paradigms."[41] Even though technology is often the "offspring of militarism and patriarchal capitalism, not to mention state socialism" that does not mean that it must be necessarily masculinized: technology can act as an illegitimate offspring, as Haraway says, proving to be "unfaithful to [its patriarchal] origins."[42] If we simply read music and popular culture in this way, we have stripped ourselves of the power to think beyond hegemonic determinations of experience according to some ultimate ground. That is, we should be prepared to go beyond commonsense assumptions, and deny our

[41] Joseph Auner describes the prevalence of the figure of the cyborg (in this rather "non-Deleuzian" manner), as "a means of reflecting on the anxieties and possibilities of what it means to be human in the increasingly technologically mediated space of industrially developed nations." Joseph Auner, "'Sing It for Me': Posthuman Ventriloquism in Recent Popular Music," *Journal of the Royal Musical Association* 128 (2003): 101.
[42] Haraway 51.

tendency to associate experience with illusions of transcendence. Rather, we should emphasis the connection of molecular elements, the multiple types of becoming, and create connections with our immanent experience of the world. With the advent of digitised audio, many of these connections can be made: the time, pitch and timbre of a voice can be controlled with great independence, meaning that apparently static or "absolute" aspects of subjectivity become accessible and alterable. This means that the cyborg can present specific new images time and space, and the body, thus opening the potential for new understandings of the human subject. In the case of Daft Punk, we should seek out the ways that their music and image enables us to think differently about "human subjectivity," rather than reinforce our ready-made ideas, manners of interpretation, and planes of transcendence.

Björk

Just as Daft Punk presents various examples of transgression between the human and the inhuman, the music of Icelandic artist Björk also engages thoroughly with this area of subjectivity.[43] In particular, Björk presents an uncommon concern with becoming-other, or becoming-imperceptible. By becoming-imperceptible, we view our human self not as the origin of images, but as one possible image among others; we no longer separate ourselves from the immanent production of virtual images in life. This means imagining life beyond the individual human organism, and not dividing life into discrete elements according to the demands of human perception. Björk's various "musical becomings" are particularly evident in her intense engagement at the limits of subjectivity and representation, as seen in various examples from her music and music videos.

[43] On Björk in the context of "avant rock," see Bill Martin, *Avant Rock: Experimental Music from the Beatles to Björk* (Chicago: Open Court, 2002) 164-76. On Björk in the context of poststructuralist feminist theory and subjectivity, see Simon Reynolds and Joy Press, *The Sex Revolts: Gender, Rebellion and Rock 'N' Roll* (London: Serpent's Tail, 1995) 354-84.

The infamous music video for "All is Full of Love" (directed by Chris Cunningham) shows Björk as a futuristic cyborg, expressing an "inhuman love" and connection between machines, in contrast to a love that is "innately human," and universally Oedipal. In her eclectic use of instrumentation in this track (and throughout most of her recorded work), Björk blurs distinctions between organic/human sounds (often in the form of voice, orchestral instruments, and "human" performances) and inorganic/inhuman sounds (in the form of electronic, sampled sounds and programmed, or "computerised" musical parts). As she says of this practice, "I'm really interested in blending together electronic music with everyday life to prove *that's actually how we're living*."[44] Louise Gray, rather than seeing this approach as a simple musical eclecticism, describes Björk's compositional method as "more a *connective* activity than crossover fusion," suggesting the kind of connections and machinic assemblages that Deleuze and Guattari describe.[45] Bill Martin refers to the above statement as Björk's own "cyborg manifesto," after Haraway's influential text.[46]

Another key aspect of Björk's musical becoming is her unusual enunciation, which forces her utterances outside the structure of representational language, into a purely affective and minoritarian use of language. This often occurs through the creation of expressive sounds and affects using the human voice, without regard for direct or literal meaning. In addition, the affective quality of Björk's voice is also emphasised via manipulation using digital production technology. In the song "Pluto" (from the album *Homogenic*), the recorded "accident" of digital distortion becomes the central sonic affect, eventually mutilating Björk's voice beyond recognition. This is particularly the case towards the end of the track, where the increase in distortion means that the voice ceases to sound like a human voice. The recording thus presents an affect that cannot be understood purely in terms of the simple representation of a singular identity. Instead, Björk enters into the distortion-machine, via a flow of

[44] Björk quoted in Martin 168, emphasis added.
[45] Louise Gray quoted in Martin 168, emphasis added.
[46] Martin 168.

becoming, a machinic assemblage formed through an intense manipulation at the limits of the medium.

In several instances from Björk's work in the 1990s, there is also a marked engagement with becoming-animal, whereby Björk is able to present images that force human thought and perception into inhuman realms. In "Human Behaviour" (from her album *Debut*), the lyrics of the track explore an inhuman outside: "if you ever get close to a human / and human behaviour / be ready to get confused / there's definitely no logic to human behaviour . . . ."[47] One of the most intriguing scenes in the film clip for this song (directed by Michel Gondry[48]) shows a tiny, flittering, moth-Björk in raptures at the radiance of a light bulb. This image explores the attraction to light, or "positive phototaxis," of *becoming-moth.* It expresses a distinct move away from the way that we commonly know the human eye to perceive and organise visible light. Björk's becoming-moth expresses an open desire for a new kind of relationship to light: as such, it is *inhuman* behaviour that gives us a way to think outside of our dogmatic images of experience, and to engage with the immanent connections of life.

The track "Hunter" and its accompanying music video (from the album *Homogenic*) express a similar becoming-animal, in the manner of a becoming-bear: Björk's bust is smoothly morphed (using CGI animation), back and forth between the image of Björk and that of a polar bear, in an explicitly visual form of becoming-animal that is reflected in the lyrics: "I'm going hunting / I'm the hunter . . .".[49] In this becoming-bear, Björk relies upon a positive and productive image of desire; not desire for that which fulfils a lack, but rather a desire for a different type of becoming. In "Hunter," the desire is not for some *thing* that is lacking, and that will provide satiation upon its capture. That is, desire is not reduced to a desire for the hunted, but rather for the act of hunting itself. This understanding of productive

[47] Björk. *Debut.* Elektra, 1993.
[48] Michel Gondry also directed the film clip for the Daft Punk track "Around the World."
[49] Björk. *Homogenic.* Elektra, 1997.

desire and becoming-other ultimately resonates with an ethics that Deleuze and Guattari expressed so well: that freedom is about freedom from the human. Inhuman behaviour leaves us free to *become* with the creative power and difference of life, rather than be biased by our illusions of transcendence and static, discrete states of being.

Summary

Against most Western philosophy, Deleuze stresses the importance of dynamic becoming over stable being. His concepts of machine and desire rely upon this understanding of becoming, whereby a Deleuzian machine is defined by immanent connections, and desire is defined as positive and productive. For Deleuze, the human subject is a part of this immanent becoming; through becoming with the connections of life, we open the stable, unitary human subject towards the molecular elements that form human subjectivity. Resonances can be found between this Deleuzian approach to subjectivity, and the contemporary notions of the cyborg and the posthuman. Each concept refers to an open-ended image of subjectivity that does not simply reinforce stable, unitary human beings. When we are able to engage with the immanent flows of experience, then we can avoid establishing the illusion of the human subject as a stable, unitary identity. Similarly, in the interpretation of artistic texts we should be prepared to avoid closed, molar interpretation, and instead engage in open, creative and molecular becomings within artistic affects. In the study of music, we often interpret music according to stable images of distinct beings. However, if we use a Deleuzian approach to subjectivity, we can seek out the ways in which artistic texts present affects that do not conform to these usual patterns of interpretation.

Conclusion

Nowhere in his oeuvre does Deleuze present definitive solutions to the various problems of musical thought, time and machines. Indeed, any attempt at "authoritative conclusions" or an "integrated theory" is contradicted by Deleuze's open approach to the power of thought. In many ways, it is Deleuze's approach to thought that is the most influential aspect of his philosophical legacy. For example, in André Pierre Colombat's overview of the tribute articles that followed Deleuze's death in 1995, he defines three main recurring themes, each of which are related to Deleuze's dedication to an open, creative form of philosophical thought:

> First, Deleuze is praised as an open and attentive reader, spectator, observer, friend and analyst. He was extremely sensitive to what makes up the very specificity of a thought, a work, or a type of sign. He never gave the impression of deriving his analysis from a preconceived system of thought, quite the contrary. A total openness to a different world of signs would have been his only "method." Second, Deleuze is praised as an inventor and creator of concepts with an incredible ability to articulate those concepts in a systematic but open system of thought. Third, Deleuze is praised for his "style," and "charm," as an individual, a professor, and a philosopher as well. ... The articles insist on the genius of Deleuze to demystify thought, to combine heterogenous systems of thought, to redefine problems in order to create new concepts and new paths for thought.[1]

It is precisely these Deleuzian characteristics that provide the greatest challenge to scholars of music in the twenty-first century: to engage critically with the specificity of particular music

[1] André Pierre Colombat, "November 4, 1995: Deleuze's Death as an Event," *Man and World: An International Philosophical Review* 29.3 (1996): 239.

and musicians; to not derive analyses from preconceptions; to be open to the immanence of music and life; to create useful concepts that are nonetheless non-definitive; and to express a "style" or image of thought in scholarly endeavours. Overall, a Deleuzian approach to music and the arts is beneficial to musicology, and the study of music, because it challenges us to redefine old problems and create new paths for thought.

To these ends, Deleuze's adoption of certain terminology to describe new concepts is extremely useful for the music scholar. It provokes a critical engagement with aspects of our everyday ways of thinking, perhaps aspects that we might not otherwise consider. In each of the preceding chapters, in grappling with Deleuzian concepts, we have increased the creative opportunities for identifying new musical problems and issues. Through confronting sometimes-complex Deleuzian concepts, we have engaged with a series of problems around the notions of thought, time and machines. These are problems that often allude analysis through the tools of traditional musicology. As such, each of these areas can enable us to think about musical issues in novel and creative ways.

Examining the ways that thinking occurs in music, and the ways that music occurs in thought, is a wide-ranging and challenging aspect of musical scholarship. On the subject of thought, Deleuze would say that we have a tendency to see thinking as commensurate and propositional, as though we can tally up our "truthful" thoughts and produce a more accurate picture of the real world. When we believe this, then we have separated thought from the constant change and becoming of life; the power of thought is reduced to an imitation of a stable, prior being. We should instead affirm that thought is becoming, that it is not separate from life, but that the power of thought lies in its ability to become-other than what we understand as "thinking." In this regard, Deleuze defined very specific understandings of what we mean by the terms *image of thought, concept, affect* and *singularity* to express this

understanding of what thought is, and what it can be. The concept of singularity, in particular, opens possibilities for approaching aspects of music (for example, the musical accident) that exist outside the usual realms of musical thought; that is, of what might normally be considered "musical content."

Similarly, the relationship between music and time illustrates a number of ways that we tend to think about music. On the subject of time, Deleuze would say that there are many different types of duration, and that when we reduce our image of time to a definitive perspective (perhaps through a spatialisation of time), we have closed off life to the possibilities of other temporal becomings. One way that we can encounter becoming is through the presentation of new images of time, outside of our usual models or axioms. The time-image of modern cinema, the temporal deterritorialisations of musicians (such as Messiaen or Boulez), the time stretching of recorded audio, and the manipulation of repetitive musical structures (what we could call "metallic syntheses") can all give rise to new images of time. To express this philosophy of time, Deleuze introduced the concept of the *time-image,* and related concepts such as his understanding of *repetition*, the *refrain* and the *rhizome* are important for understanding his approach to time. Each of these concepts opens new possibilities for thinking about music and time.

Just as the relationship between music and time challenges our images of thought, so to does the notion of the "machine" in music. On this topic Deleuze would say that we are part of the immanent connections produced through life, rather than all-knowing beings set apart from experience. To this end, he stressed our ability to *become-other* than ourselves through an engagement with this flow of connections. To engage with such connections, Deleuze and Guattari referred to *desiring machines* and *assemblages*: both concepts that rely upon a reconsideration of desire as positive and productive. Such an understanding of desire contrasts

markedly with the image of desire presented in much Western philosophy and psychoanalysis, where the understanding of desire is traditionally based on negation and lack. By thinking desire positively, Deleuze is able to think about the forces and connections that give rise to distinct human subjects, beyond any preconception of the human body as a discrete and unitary being. Conceiving of the "body" that precedes organisation, Deleuze and Guattari refer to the disorganised *body without organs:* from this concept, contemporary notions of the *cyborg* and *posthuman* can be seen as attempts to engage thoughtfully with the *molecular* elements that come together to form distinct human subjects.

The previous chapters have not provided a comprehensive exploration of the many terms that Deleuze employed. In particular, there are a number of concepts that have not been explored here, but that have been adopted by a broad range of scholars in the humanities, including *the fold*, *map* and *nomad*, as well as other less widely used concepts such as *haecceity* and *faciality*. The interplay between all such concepts constitutes yet another unique attribute of Deleuze's work. Deleuzian concepts are never unitary; rather, they are constantly evolving and connected to other concepts. Such a creative philosophical method presents yet another challenge: to maintain the study of music and musicology as constantly changing, dynamic aspects of life. This thesis is therefore only one unique path of thought amongst the many opportunities that are opened out by an engagement with Deleuze's work.

Returning to the broad Deleuzian characteristics that provide the greatest challenges to scholars of music, we might say that when we do these things – when we critically engage with the specificity of particular music and musicians; when we do not derive analyses from preconceptions; when we are open to the immanence of music and life; when we look to create useful concepts alongside music – then we encounter a great connection between

philosophy and music, and we have opened ourselves to the immanent connections between music and life.

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